FINAL DRAFT/PROPOSED CAAPP PERMIT
University of Illinois at Urbana-Champaign
I.D. No.:019010ADA
Application No.: 95120068
October 9, 2003

217/782-2113

TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT[1]

PERMITTEE

University of Illinois at Urbana-Champaign
Attn: David B. Wilcoxen, DEHS, Environmental Compliance
354 Administration Building
Urbana-Champaign, Illinois 61820

Application No.: 95120068 I.D. No.: 019010ADA
Applicant's Designation: Date Received: December 6, 1995
Operation of: Public University
Date Issued: TO BE DETERMINED Expiration Date[2]: DATE
Source Location: 354 Administration Building, Urbana-Champaign
Responsible Official: Craig S. Bazzani, Comptroller and Vice President

This permit is hereby granted to the above-designated Permittee to OPERATE a university campus, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact the Permit Section at 217/782-2113 or Joseph N. Kotas at 847/294-4023.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JNK:RWC:jar

cc: Illinois EPA, FOS, Region 2
CES
Lotus Notes

[1] This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 – federal PSD and 35 IAC Part 203 – Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

[2] Except as provided in Condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

University of Illinois at Urbana-Champaign
354 Administration Building
Urbana-Champaign, Illinois 61820-3070
217/333-3655

I.D. No.: 019010ADA
Standard Industrial Classification: 8221 Steam and Air Conditioning Supply; (Secondary) 5084, Incineration

1.2 Owner/Parent Company

The Board of Trustees of The University of Illinois
354 Administration Building
Urbana, Illinois 61820

1.3 Operator

The Board of Trustees of The University of Illinois
354 Administration Building
Urbana, Illinois 61820

David B. Wilcoxen, Division of Environmental Health and Safety (DEHS), Environmental Compliance
217/333-3655

1.4 General Source Description

The location and type of the significant emission units serving the University of Illinois at Urbana-Champaign ("UIUC") campus are broadly given as follows: The Veterinary Medicine Hospital (hospital incinerator), Water Survey Research Center (boilers), Children Research Center (boilers), Natural Resources Studies Annex (boilers), Hazardous Waste Laboratory (boilers), Operation & Maintenance Facility (gasoline storage tank), Edward R. Madigan Laboratory (incinerator); The Atkins Tennis Center (boiler) and The Abbott Power Plant.

The Abbott Power Plant consists of six boilers identified as boilers 2, 3, 4, 5, 6 and 7. (Boiler 1 has been removed from the plant.) Boilers 2, 3 and 4 can fire #2 fuel oil, natural gas, or a combination thereof. Boilers 2, 3 and 4 are also used to dispose of small amounts of waste liquid scintillation cocktail ("WLSC"), while burning natural gas. WLSC is generated from on-site research activities. Boilers 5, 6 and 7 are coal-fired boilers. Combustion Turbines 1 and 2 can fire natural gas or #2 fuel oil and the associated duct burners 1 and 2 fire natural gas. Ancillary operations at the power plant include the following: a fuel supply system, a flue gas handling system, an ash removal system, a flue gas desulfurization (FGD) system, a steam

distribution and condensate return system, two Heat Recovery Steam Generating (HRSG) units and three steam driven turbines.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
ERMS	Emissions Reduction Market System
HAP	Hazardous Air Pollutant
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
kW	kilowatts
lb	pound
mmBtu	Million British thermal units
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration
RMP	Risk Management Plan
SO_2	Sulfur Dioxide
T1	Title I – identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New – identifies Title I conditions that are being established in this permit
T1R	Title I Revised – identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

None

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

None

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a)(10)].

Storage tanks of any size containing virgin or re-refined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a)(11)].

Printing operations with aggregate organic solvent usage that never exceeds 750 gallons per year from all printing lines at the source, including organic

solvent from inks, dilutents, fountain solutions, and cleaning materials [35 IAC 201.210(a)(14)].

Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output [35 IAC 201.210(a)(15)].

Gas turbines and stationary reciprocating internal combustion engines of between 112 kW and 1,118 kW (150 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a)(16)].

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.

3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.

3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Date Constructed	Emission Control Equipment
01	Abbott Power Plant Boiler 2 (236 mmBtu/Hr) Natural Gas and Fuel Oil Fired	1971 Modified 2002	Low NO_x Burners
	Abbott Power Plant Boiler 3 (236 mmBtu/Hr) Natural Gas and Fuel Oil Fired	1971 Modified 2002	Low NO_x Burners
	Abbott Power Plant Boiler 4 (236 mmBtu/Hr) Natural Gas and Fuel Oil Fired	1971 Modified 2002	Low NO_x Burners
02	Abbott Power Plant Boiler 5 (200 mmBtu/Hr) Coal Fired	1956 Modified 6/88	ESP, FGD
	Abbott Power Plant Boiler 6 (200 mmBtu/Hr) Coal Fired	1956 Modified 6/88	ESP, FGD
	Abbott Power Plant Boiler 7 (243 mmBtu/Hr) Coal Fired	1962 Modified 2/89	ESP, FGD
03	Coal Handling System, B to C Transfer	1956	Fabric Filter
	Coal Handling System, C to D Transfer	1956	Fabric Filter
	Coal Handling System, D to Bunker Transfer	1956	Fabric Filter
04	Coal Crushing	1956	Enclosure, Fabric Filter
05	Ash Handling System	1956	Bag Filter, Nuveyor Ash Washer
	Limestone Handling System	1986	Fabric Filter
06	Combustion Turbine 1 (134.38 mmBtu/Hr)	Fall 2001	CO Catalyst
	Combustion Turbine 2 (134.38 mmBtu/Hr)	Fall 2001	CO Catalyst
	Duct Burner 1 (80 mmBtu/hr)	Fall 2001	CO Catalyst
	Duct Burner 2 (80 mmBtu/hr)	Fall 2001	CO Catalyst
07	Veterinary Medicine Hospital Incinerator	September 1980 (Type 4 and 7 Wastes)	Thermal Oxidizer
	Edwin R. Madigan Laboratory (ERML) Incinerator	June, 1989 (Type 4 Waste)	Thermal Oxidizer

08	Water Survey Research Center-Boiler 1 (8.375 mmBtu/Hr)	1965	None
	Water Survey Research Center-Boiler 2 (8.375 mmBtu/Hr)	1965	None
	Children's Research Center-Boiler 1 (3.15 mmBtu/Hr)	1967	None
	Children's Research Center-Boiler 2 (3.15 mmBtu/Hr)	1967	None
	Hazardous Waste Laboratory-Boiler 1 (5.23 mmBtu/Hr)	1988	None
	Hazardous Waste Laboratory-Boiler 2 (5.23 mmBtu/Hr)	1988	None
	Atkins Tennis Center Boiler (3.753 mmBtu/Hr)	1991	None
09	Flue Gas Reheat Burner Abbott (11.0 mmBtu/Hr)	1986	None
	Natural Resources Studies Annex-Boiler 1 (10.461 mmBtu/Hr)	1973	None
	Natural Resources Studies Annex-Boiler 2 (10.461 mmBtu/Hr)	1973	None
10	One 12,000 Gallon Unleaded Gasoline Storage Tank	Oct, 1987	Submerged Fill Pipe
11	Other Gasoline Storage	Various	Submerged Fill Pipe

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of PM, SO2, CO and NO_x emissions.

5.1.2 This permit is issued based on the source not being a major source of HAPs.

5.2 Applicable Regulations

5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.

5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

5.2.3 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the

standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.4 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or

b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.

5.2.5 a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.

b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.6 Episode Action Plan

a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts,

red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.

b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.

c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.

d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:

i. Illinois EPA, Compliance Section.

5.2.7 CAM Plan

This stationary source has a pollutant-specific emissions unit that is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The source must submit a CAM plan for each affected pollutant-specific emissions unit upon application for renewal of the initial CAAPP permit, or upon a significant modification to the CAAPP permit for the construction or modification of a large pollutant-specific emissions unit which has the potential post-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	23.28
Sulfur Dioxide (SO_2)	1,112.39
Particulate Matter (PM)	212.95
Nitrogen Oxides (NO_x)	1,625.80
HAP, not included in VOM or PM	2.76
Total	2,977.19

5.5.2 Emissions of Hazardous Air Pollutants

This permit is issued based on the emissions of HAPs as listed in Section 112(b) of the CAA not being equal to or exceeding 10 tons per year of a single HAP or 25 tons per year of any combination of such HAPs, so that this source is considered a minor source for HAPs.

5.5.3 Other Source-Wide Emission Limitations

The annual emissions from existing Boilers #2, #3 and #4 shall not exceed the following limitations:

Pollutant	Emissions (Tons/Year)	Underlying Rules
NO_x	145.36	40 CFR 52.21
CO	168.74	40 CFR 52.21

The limits on NO_x and CO are limitations established in Permit 01010053, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21. See Condition 7.1.6 [T1]

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current

month plus the preceding 11 months (running 12 month total). [T1]

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.5 Records for Operating Scenarios

N/A

5.6.6 Retention and Availability of Records

a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.

b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and compliance procedures in Section 7 (Unit Specific Conditions) of this permit.

6.0 EMISSIONS CONTROL PROGRAMS

6.1 NO_X Trading Program

N/A

6.2 Acid Rain Program

N/A

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit: Three natural gas/distillate fuel oil fired boilers.
Control: Low NO_x burners. (Not an NSPS modification)

7.1.1 Boilers #2, #3 and #4 are fuel combustion emission units used to provide heat, on-site power needs, and various on-site needs. The boilers are fired with distillate fuel oil, natural gas, or a combination thereof. The Keystone Model 18188-18190 boilers are also capable of combusting a waste liquid called "Waste Liquid Scintillation Cocktail." The three boilers were constructed in 1972. In 2002, low NO_x burners were installed.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
01	Abbott Power Plant-Boiler 2 (236 mmBtu/Hr) Natural Gas and Fuel Oil Fired	Low-NO_X Burners
	Abbott Power Plant-Boiler 3 (236 mmBtu/Hr) Natural Gas and Fuel Oil Fired	Low-NO_X Burners
	Abbott Power Plant-Boiler 4 (236 mmBtu/Hr) Natural Gas and Fuel Oil Fired	Low-NO_X Burners

7.1.3 Applicability Provisions and Applicable Regulations

a. The "affected boilers" for the purpose of these unit-specific conditions, are the boilers described in Conditions 7.1.1 and 7.1.2.

7.1.4 Applicable Emission Standards

a. The affected boilers shall comply with the standard in Condition 5.2.2(a), which addresses visible emissions of fugitive particulate matter, as defined by 35 IAC 211.2490, from the affected boilers, pursuant to 35 IAC 212.301.

b. The affected boilers shall comply with the standard in Condition 5.2.2(b), which addresses the opacity of the emission of smoke or other particulate matter from the affected boiler, pursuant to 35 IAC 212.123.

c. The emissions of PM from the affected boilers shall not exceed 0.10 lb/mmBtu of actual heat input, pursuant to 35 IAC 212.206.

d. The emissions of SO_2 from the affected boilers shall not exceed 0.3 lb/mmBtu of actual heat input when burning liquid fuel exclusively, pursuant to 35 IAC 214.122(b).

e. i. No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one-hour period from any fuel combustion emission source burning simultaneously any combination of solid, liquid and gaseous fuels to exceed the allowable emission rate determined by the following equation:

$$E = AX + BY + CZ$$

ii. Symbols in the equation mean the following:

E = Allowable sulfur dioxide emission rate;

A = Solid fuel sulfur dioxide emission standard which is applicable

B = Distillate oil sulfur dioxide emission standard determined from the table in subsection (d)

C = Residual fuel oil sulfur dioxide emission standard which is applicable

X = Actual heat input from solid fuel

Y = Actual heat input from distillate fuel oil

Z = Actual heat input from residual fuel oil

iii. That portion of the actual heat input that is derived:

A. From the burning of gaseous fuels produced by the gasification of solid fuels shall be included in X;

B. From the burning of gaseous fuels produced by the gasification of distillate fuel oil shall be included in Y;

C. From the burning of gaseous fuels produced by the gasification of residual fuel oil shall be included in Z;

D. From the burning of gaseous fuels produced by the gasification of any other liquid fuel shall be included in Z; and,

E. From the burning of by-product gases such as those produced from a blast furnace or a catalyst regeneration unit in a petroleum refinery shall be included in Z.

iv. Metric or English units may be used in the equation of subsection (i.e.) as follows:

Parameter	Metric	English
E	kg/hr	Lbs/Hr
A, C	kg/MW-hr	Lbs/mmBtu
B	0.46 kg/MW-hr	0.3 Lbs/mmBtu
X, Y, Z	MW	mmBtu/Hr

[35 IAC 214.162]

f. No person shall cause or allow the emission of carbon monoxide into the atmosphere from any fuel combustion emission source with actual heat input greater than 10 mmBtu/hr to exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

g. This permit is issued based on the affected boilers 2, 3 and 4 meeting the eligibility requirements of 40 CFR 266.108, Subpart H, for the small quantity burner exemption for disposal of specific types of hazardous waste in regards to the combustion of waste liquid scintillation cocktail in boilers. The disposal of waste liquid scintillation cocktail is allowed under the following conditions found in Condition 7.1.6, and 7.1.7.

h. The Permittee shall comply with applicable limits on radionuclide emissions established by 40 CFR 61, Subpart I, (National Emission Standards for Radionuclide Emissions from facilities licensed by the Nuclear Regulatory Commission (NRC) and facilities not covered by Subpart H.

7.1.5 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected boilers not being subject to the following New Source

Performance Standards (NSPS) for steam generators, 40 CFR 60 Subpart D, Da, Db or Dc, because the affected boiler commenced construction or modification before June 19, 1984 and the maximum design heat input capacity is less than 250 mmBtu/hr.

b. The affected boilers are not subject to 35 IAC 217. 121, because the affected boilers' maximum design heat input capacity is less than 250 mmBtu/hr.

c. This permit is issued based on the affected boilers not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected boiler does not use an add-on control device to achieve compliance with an emission limitation or standard.

7.1.6 Work Practices, Operational and Production Limits, and Emission Limitations

a. Natural gas, distillate fuel oil, and waste liquid scintillation cocktail (WLSC) shall be the only fuels fired in the affected boilers.

b. At the above location, the Permittee shall not keep, store, or utilize:

Distillate fuel oil (Grades 1 and 2) with sulfur content greater than the larger of the following two values:

i. 0.28 weight percent, or

ii. The wt. Percent given by the formula:

Maximum Wt. Percent Sulfur = (0.000015) X (Gross Heating Value of the Oil in Btu/Lb.)

c. i. Annual fuel consumption by existing boilers 2, 3 and 4 combined shall not exceed 2,659 million standard cubic feet of natural gas and 244,900 gallons of oil. [T1]

ii. Emissions of existing boilers 2, 3 and 4 each shall not exceed the following limits:

	Emission Factor	
	Gas Firing (Lbs/mmscf)	Oil Firing (Lbs/1,000 Gal)
NO_x	100	28.94
CO	125	20.70

iii. Annual emissions of existing boilers 2, 3, and 4 combined shall not exceed the following limits:

	Tons/Month	Tons/Year
NO_x	18.0	145.36
CO	21.6	168.74

These limits are based on information included in the application and established as limits by this permit including the maximum emissions, fuel usage and the applicable emission factors for low-NO_x burners. [T1].

iv. The above limitations were established in Permit 01010053, pursuant to PSD, 40 CFR 52.21. These limitations ensure that the construction and/or modification addressed in these permit(s) does not constitute a major modification pursuant to Title I of the CAA, specifically the federal PSD rules [T1].

v. This permit is issued based on the construction and operation of the new emission units (Combustion Turbines 1 and 2- See Emission Unit 06) not constituting a major modification subject to the federal rules for Prevention of Significant Deterioration of Air Quality, (PSD) 40 CFR 52.21. For emissions of NO_x this determination relies upon contemporaneous decreases in NO_x emissions from existing units such that the net changes in NO_x emissions from this project is not significant as shown in Tables I, II, III, and IV (see 7.6.11) when taken with creditable decreases from the installation of low NO_x burners to existing boilers (existing boilers 2, 3, and 4) along with associated creditable decreases.

vi. These limits and requirements and associated recordkeeping and reporting requirements become effective upon initial startup of the combustion turbines (Emission Unit 06). If the startup of the second turbine is delayed, the Illinois EPA may establish alternative limits and requirements to assure sufficient contemporaneous decreases in NO_x emissions for operation of a single turbine. [T1].

d. i. The waste liquid scintillation cocktail ("WLSC") shall not be burned during periods of start-up, shutdown, malfunction or breakdown of the boiler. If the boiler malfunctions,

the waste feed shall be discontinued within 10 minutes.

ii. The amount of WLSC burned shall be limited to 50 gallons per hour and 260 gallons per month.

iii. The WLSC shall not be introduced into the boiler if the heat input to the boiler from natural gas and/or fuel oil combustion is less than 25% of the boiler heat input capacity.

iv. The WLSC shall be burned only during steady state boiler load.

v. The minimum heating value of the waste must exceed 5,000 Btu/lb.

vi. Only waste generated onsite may be burned in the boilers.

e. The Permittee shall fulfill all requirements pursuant to 40 CFR 266.108, Subpart H for small quantity on site burner exemption.

f. The Permittee shall comply with applicable limits on radionuclide emissions established by 40 CFR 61, Subpart I, (National Emission Standards for Radionuclide Emissions from facilities licensed by the Nuclear Regulatory Commission (NRC) and facilities not covered by Subpart H.

g. The affected boilers must be operated in accordance with applicable conditions of any United States NRC and Illinois Department of Nuclear Safety Licenses during the disposal of radioactive waste materials.

h. Any radioactive waste materials to be burned in the boilers shall be clearly labeled or otherwise identified.

i. Compliance with annual limits set by this permit shall be determined from a running total of 12 months of data.

j. Continued operation of Boilers 2, 3 and 4 during malfunction or breakdown is not allowed.

7.1.7 Testing Requirements

a. Within 60 days after achieving the maximum production rate at which the emission units will be operated but not later than 180 days after initial startup, the

Permittee shall have emissions testing performance for selected boilers for NO_X and CO at its expense by a testing service approved by the Illinois EPA.

b. The following methods and procedures shall be used for testing of emissions:

USEPA Reference Test Methods shall be used for emission testing, including the following methods:

Carbon Monoxide	USEPA Method 10
Nitrogen Oxides	USEPA Method 7

c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing and shall include as a minimum:

i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

ii. The specific conditions under which testing shall be performed including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source will be tracked and recorded.

iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.

iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.

d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

e. Three copies of the Final Reports for these tests shall be forwarded to the Illinois EPA within 30 days

after the test results are compiled and finalized. The Final Report from testing shall contain a minimum:

i. A summary of results;

ii. General Information;

iii. Description of test method(s), including a description of sampling points, sampling train, analysis equipment and test schedule.

iv. Detailed description of test conditions, including:

A. Fuel consumption.

B. Boiler firing rate.

C. Steam output rates.

v. Data and calculations, including copies of all raw data sheets and records of laboratory analysis, sample calculations and data on equipment calibration.

f. The Permittee shall analyze the WLSC once every six months for radioactive materials and once a year for suspected organic compounds, chlorides, arsenic, chromium, lead and cadmium.

7.1.8 Monitoring Requirements

Stack opacity shall be monitored visually on a daily basis to satisfy compliance with condition 7.1.12.

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected boiler, pursuant to Section 39.5(7)(b) of the Act:

a. A maintenance and repair log for the affected boiler, listing each activity performed with date.

b. Distillate and natural gas fuel usage for the affected boiler, gallons/month and gallons/year and scf/month and scf/year, respectively.

c. Records of the sulfur content of the fuel oil supply to the affected boiler, based on the weighted average of material in the storage tank, or the sulfur content

of the supply shall be assumed to be the maximum sulfur content for any shipment in the tank based on the records required in Condition 7.1.9(b) above.

d. Emissions of each pollutant from the affected boiler with supporting calculations including documentation on the validity of the emission factors used, ton/month and ton/yr.

e. The Permittee shall maintain a file of the following items:

   i. The manufacturers specifications for the low-NOx burners installed in existing boilers 2, 3 and 4.

   ii. A copy of the Final Report(s) for emission testing conducted pursuant to Condition 7.1.7(c).

f. Records for Continued Operation During Malfunctions And Breakdowns

   Pursuant to 35 IAC 201.263, the Permittee shall maintain records, related to malfunction and breakdown for the affected boiler that as a minimum, shall include:

   i. A maintenance and repair log for the affected boiler and associated equipment, listing activities performed with date.

   ii. Records for each incident when operation of the affected boiler continued during malfunction or breakdown with excess emissions, as provided by Condition 7.1.3(b), including the following information:

      A. Date and duration of malfunction or breakdown.

      B. A description of the malfunction or breakdown.

      C. The corrective actions used to reduce the quantity of emissions and the duration of the incident.

      D. Confirmation of fulfillment of the requirements of Condition 7.1.10(b), as applicable, including copies of follow-up

reports submitted pursuant to Condition 7.1.10(b)(ii).

E. If excess emissions occurred for two or more hours:

1. An explanation why continued operation of the affected boiler was necessary.

2. The preventative measures planned or taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.

3. An estimate of the magnitude of excess emissions occurring during the incident.

g. Records of the amount, location and time of Waste Liquid Scintillation Cocktail burned in each boiler shall be maintained for a period of five years. In addition, these records must be made available to the IEPA upon request.

h. Appropriate records necessary to show compliance with Conditions 7.1.4(h) and 7.1.6(f), (g), (h), and 40 CFR 61, Subpart I, (National Emission Standards for Radionuclide Emissions from facilities licensed by the Nuclear Regulatory Commission (NRC) and facilities not covered by Subpart H).

7.1.10 Reporting Requirements

a. Reporting of Deviations

For the affected boiler, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as follows. Such notifications shall include a description of each incident and a discussion of the probable cause of deviation, any corrective actions taken and any preventative measures taken, pursuant to Section 39.5(7)(f)(ii) of the Act:

i. Notification within 30 days for operation of an affected boiler that was not in compliance with applicable requirements in Conditions 7.1.4 that continued for more than 12 operating hours from the time that it was identified. Such notifications shall be accompanied by a copy of the records for the incident required by Condition 7.1.9(e).

ii. Notification with the quarterly reports required by Condition 7.1.10(a) for other deviations, including deviations from applicable emission standards, inspection requirements and recordkeeping requirements.

b. Reporting of Continued Operation During Malfunctions And Breakdowns

Pursuant to 35 IAC 201.263, the Permittee shall provide the following notifications and reports to the Illinois EPA, concerning incidents when operation of an affected process continued during malfunction or breakdown with excess emissions as addressed by Condition 7.1.3(b).

i. The Permittee shall notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) as soon as possible during normal working hours for each incident in which the opacity from an affected process exceeds 30 percent for more than five consecutive 6-minute averaging periods. (Otherwise, if opacity during a malfunction or breakdown incident only exceeds 30 percent for less than five consecutive 6-minute averaging periods in a row, the Permittee need only report the incident in the quarterly report, in accordance with Condition 7.1.10(a)(ii).

ii. Upon conclusion of each incident that is two hours or more in duration, the Permittee shall submit a written follow-up notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed explanation of the event, an explanation why continued operation of an affected process was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected process was taken out of service.

b. The Permittee shall submit an annual report to the Illinois EPA, Compliance Section and Regional Office, of the results of required scheduled annual and semi-annual analyses of Waste Liquid Scintillation Cocktail.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.1.12 Compliance Procedures

a. Compliance with Condition 7.1.4(c) is demonstrated by proper operating conditions of the affected boilers and the testing requirements of Section 7.1.7.

b. Compliance with Condition 7.1.4(d) and (e) is demonstrated by the recordkeeping requirements of Section 7.1.9.

c. Compliance with Condition 7.1.4(f) is demonstrated by proper operating conditions of the affected boilers.

d. Compliance with Condition 7.1.4(g) is demonstrated by the recordkeeping requirements of Conditions 7.1.7 and by the work practices, operational and production Limits, and emission limitations of Condition 7.1.6(d).

e. Compliance with Condition 7.1.4(h) is demonstrated by the work practices, operational and production limits, and emission limitations of Condition 7.1.6(f), (g), and (h), and the recordkeeping requirements of Conditions 7.1.9(g).

7.2 Unit: Coal Fired Boilers #5, #6 and #7
Control: Electrostatic Precipitators and Flue Gas Desulfurization

7.2.1 Description

Coal fired Boilers #5, #6 and #7 are fuel combustion emission units used to produce steam and generate electricity. The boilers are fired exclusively on bituminous coal and rated at 200 mmBtu/hr, 200 mmBtu/hr and 243 mmBtu/hr respectively. (Boiler #7 was rated at 265 mmBtu/hr upon re-conversion from natural gas to coal. A subsequent engineering analysis of the boiler was performed and it was determined that the heat input capacity is more accurately given as 243 mmBtu/hr.) Flue gas from each boiler passes through a unit specific electrostatic precipitator and unit specific induced draft fan. Flue gas from all three units is combined and routed through a common Chiyoda Thoroughbred 121 Flue Gas Desulfurization System.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
02	Abbott Power Plant Boiler 5 (200 mmBtu/hr) Coal Fired	ESP, FGD
	Abbott Power Plant Boiler 6 (200 mmBtu/hr) Coal Fired	ESP, FGD
	Abbott Power Plant Boiler 7 (243 mmBtu/hr) Coal Fired	ESP, FGD

7.2.3 Applicability Provisions and Applicable Regulations

a. An “affected boiler” for the purpose of these unit-specific conditions, is a boiler described in Conditions 7.2.1 and 7.2.2.

b. The affected boilers are subject to the emission limits identified in Condition 5.2.2.

c. The affected boilers are combustion sources with actual heat input less than, or equal to, 73.2 MW (250 mmBtu/hr) located outside the Chicago, St. Louis (Illinois) or Peoria major metropolitan areas. No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any existing fuel combustion source with actual heat input less than, or equal to, 73.2 MW (250

mmBtu/hr), burning solid fuel exclusively, located outside the Chicago, St. Louis (Illinois) or Peoria major metropolitan areas, to exceed either of the following, whichever such person determines shall apply:

i. 10.5 kg of sulfur dioxide per MW-hr of actual heat input (6.8 lbs/mmBtu), provided such owner or operator complies with all applicable provisions of Section 214.186, or

ii. The emission limit provided by Subpart E.

[35 IAC 214.142]

d. The emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

e. No person shall cause or allow the emission of particulate matter into the atmosphere from any fuel combustion emission unit for which construction or modification commenced prior to April 14, 1972, using solid fuel exclusively, which is located outside the Chicago major metropolitan area, to exceed the limitations specified in the table below in any one hour period except as provided in Section 212.203 of this Subpart.

METRIC UNITS

H (Range)	S
MW	Kg/MW
Less Than or Equal to 2.93	1.55
Greater Than 2.93 But Smaller Than 73.2	$3.33\ H^{-0.715}$
Greater Than or Equal to 73.2	0.155

ENGLISH UNITS

H (Range)	S
mmBtu/Hr	lbs/mmBtu
Less Than or Equal to 10	1.0
Greater Than 10 But Smaller Than 250	$5.18H^{-0.715}$

Greater Than or Equal to 250	0.1

Where:

S = Allowable emission standard in lbs/mmBtu/hr or kg/MW of actual heat input

H = Actual heat input in mmBtu/hr or MW-hr

[35 IAC 212.202]

f. The affected boilers are subject to the following Standard for Opacity:

i. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to Section 212.122 of this Subpart.

ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.

[35 IAC 212.123]

g. Startup Provisions

The Permittee is authorized to operate an affected boiler in violation of the applicable standards in Condition 5.2.2(b) (35 IAC 212.123(a)) and the hourly limits of Conditions 7.2.6 during startup subject to the following provisions. This authorization is provided pursuant to 35 IAC 201.262, as the Permittee has affirmatively demonstrated that all reasonable efforts have been made to minimize startup emissions, duration of individual starts, and frequency of

startups. This authorization is subject to the following:

i. This authorization only extends for a period of up to 24 hours following initial firing of fuel for each startup event. As provided by 35 IAC 201.265, this authorization does not shield the Permittee from enforcement for any such violation and shall only constitute a prima facie defense to such an enforcement action.

ii. The Permittee shall take the following measures to minimize emissions resulting from startups, the duration of startups, and minimize the frequency of startups:

A. Operating in accordance with the manufacturer's written operating and startup procedures, including a pre-check of the unit, or other written procedures developed and maintained by the Permittee so as to minimize the duration of startups and the emissions associated with startups. These procedures should allow for review of operating parameters of the unit during startup, or shutdown as necessary to make adjustments to reduce or eliminate excess emissions.

B. Maintaining units in accordance with written procedures developed and maintained by the Permittee so as to minimize the duration of startups and the frequency of startups. These maintenance practices shall include maintenance activities before the unit is started up, when the unit is in operation, and when the unit is shut down.

C. The procedures described above shall be reviewed at least annually to make necessary adjustments and shall be made available to the Illinois EPA upon request.

iii. The Permittee shall fulfill applicable recordkeeping requirements of Condition 7.2.9(i).

h. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of an affected boiler, the Permittee is authorized to continue operation of the affected boiler in violation of the applicable requirement of Condition 5.2.2(b) (35 IAC 212.123(a)) and the hourly limits of Conditions 7.2.6, as necessary to provide essential service, i.e. prevent interruption in or shortage of the public's electricity supply, provided that operation shall not be continued solely for the economic benefit of the Permittee or to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

i. The Permittee shall repair the damaged feature(s) of the affected boiler or remove the affected boiler from service as soon as practicable.

ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.2.9(j) and 7.2.10(b).

7.2.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected boilers not being subject to the following New Source Performance Standards (NSPS) for steam generators because the affected boilers commenced construction before June 19, 1984 and have not been modified thereafter, based on the NSPS definition of modification:

i. NSPS for Industrial- Commercial-Institutional Steam Generating Units for Which Construction is Commenced After June 19, 1984, 40 CFR 60 Subpart Db.

b. The provisions of 35 IAC 215.301 and 302, Use of Organic Material, shall not apply to fuel combustion emission sources [35 IAC 215.303].

c. The affected boilers are not subject to the requirements of the NO_x Compliance Programs of 35 IAC Part 217 because each affected boiler has a rated heat input capacity less than 25 MWe. Boilers #5 and #6 have nominal nameplate ratings of 200 mmBtu/hr heat input capacity. Boiler #7 was rated at 265 mmBtu/hr at the time it was reconverted to coal. A subsequent engineering analysis of the boiler was performed and it was determined that the heat input capacity is 243 mmBtu/hr. Boiler #7 was listed as a Budget Unit under

35 IAC 217 Subpart W with a Budget Allocation of 86 Units based on the 265 mmBtu/hr heat input capacity. Due to the new heat input rating of 243 mmBtu/hr, Boiler #7 is no longer included in the NO_x Control and Trading program. As a consequence of the aforementioned developments, the University of Illinois Abbott Power Plant will not be getting any NO_x allowances nominally allocated for Boiler #7.

d. Pursuant to 40 CFR 72.6(b)(2), any affected boiler that commenced commercial operation before November 15, 1990 and that did not, as of November 15, 1990, and does not currently, serve a generator with a nameplate capacity of greater than 25 MWe are not affected units subject to the requirements of the Acid Rain Program.

e. This permit is issued based on the affected boilers being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected boilers are subject to an emission limitation or standard for which this CAAPP permit specifies a continuous compliance determination method, pursuant to 40 CFR 64.2(b)(1)(vi).

7.2.5 Operational and Production Limits and Work Practices

a. Bituminous coal shall be the only fuel fired in the affected boilers.

b. The combined steam generation rate of Boilers #5, 6 and 7 shall not exceed 350,000 lbs/hr. The above limitation was established in Permit 82090027 [T1].

c. The affected boilers shall be equipped with unit specific electrostatic precipitators which will operate at all times the emission unit operates, except periods of start-up or malfunction. [T1]

d. The affected boilers shall be equipped with a Flue Gas Desulfurization system which will operate at all times the emission unit operates, except periods of start-up or malfunction. [T1]

e. The heat input capacity of Boiler #7 shall not exceed 243 mmBtu/hr. For coal of nominal heating value of 10,980 Btu/lb, the coal feed rate to Boiler #7 shall not exceed 22,131 lb/hr. [T1N]

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected boilers are subject to the following:

a. Emissions from the affected boilers shall not exceed the following limits:

Pollutant	(Lb/mmBtu)	(Ton/Year)
PM	0.10 for Boiler #7 0.12 for Boilers #5 and #6	265 Tons/Yr (Combined)
SO_2	1.20	2,760
NO_x	0.70	1,570

b. Compliance with annual limits shall be determined on a daily basis from the sum of the data for the current day plus the preceding 364 days (running 365 day total) [T1].

c. The above limitations were established in Permit 82090027 [T1].

7.2.7 Testing Requirements

a. The Permittee shall perform coal analysis by weekly analysis method pursuant to 35 IAC Section 214.101(d) and will keep on site for a period of two years. These analyses should include percent ash, percent sulfur, percent moisture and heat content. [T1]

7.2.8 Monitoring Requirements

a. The Permittee shall maintain and operate a continuous opacity monitor on the common duct, breeching or stack of Boilers #5, 6 and 7 [T1].

b. The Permittee shall maintain and operate a short computer program which will take manual input of data recorded on the scrubber and boiler operating logs and calculate the pounds of SO2 emissions per million Btu heat input. The value shall be based on the analyzer readings and fuel usage data. The Permittee shall maintain and operate continuous SO2 monitoring as per plan submitted dated November 17, 1994. [T1]

c. Each electrostatic precipitator shall be monitored on a continuous basis for outlet opacity, outlet temperature, inlet temperature, primary voltage, secondary voltage and current. Each monitor shall be reviewed for accuracy on a quarterly basis [T1].

d. The Flue Gas Desulfurization System shall be monitored continuously for outlet SO2 concentration (ppm), outlet flue gas temperature, inlet flue gas temperature, density of outlet slurry and process pH. [T1]

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected boilers to demonstrate compliance with Conditions 5.5.1, 7.2.3, 7.2.5, and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

a. A maintenance and repair log for each affected boiler, listing activities performed with date.

b. The sulfur content of the fuel fired in the affected boilers.

c. Fuel consumption for the affected boilers, scf/day and scf/year.

d. Operating hours for the affected boilers, hr/day and hr/year.

e. Heat content of the fuel being fired in the affected boilers.

f. Maintenance and operation of the continuous monitoring system shall be done pursuant to 40 CFR 60.45.

g. Emissions of each pollutant from the affected boilers, including emissions from startups, with supporting calculations including documentation on the validity of the emission factors used, ton/day and ton/yr.

h. The Permittee shall maintain the following:

   i. Any day in which emission and/or opacity exceeded an applicable standard or limit; the magnitude and cause of the exceedance and the remedial action taken.

   ii. Any periods during which a continuous monitoring system was not operational, with explanation.

i. Records for Startup

   The Permittee shall maintain the following records, pursuant to Section 39.5(7)(b) of the Act, for each affected boiler subject to Condition 7.2.3(e), which at a minimum shall include the following information for each startup:

   i. Date and duration of the startup, i.e., start time and time normal operation achieved.

ii. If normal operation was not achieved within 2 hours, an explanation why startup could not be achieved.

iii. An explanation why established startup procedures could not be performed, if not performed.

iv. The nature of opacity, i.e., severity and duration, during the startup and the nature of opacity at the conclusion of startup, if above normal.

v. Whether exceedance of Condition 5.2.2 may have occurred during startup, with explanation and estimated duration (minutes).

j. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected boiler during malfunctions and breakdown, which as a minimum, shall include:

i. Date and duration of malfunction or breakdown.

ii. A detailed explanation of the malfunction or breakdown.

iii. An explanation why the damaged feature(s) could not be repaired as soon as practicable or the affected boiler could not be removed from service without risk of injury to personnel or severe damage to equipment.

iv. The measures used to reduce the quantity of emissions and the duration of the event.

v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.

vi. The amount of release above typical emissions during malfunction/breakdown.

7.2.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of deviations of an affected boiler with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the

probable cause of such deviations, and any corrective actions or preventive measures taken:

i. Notification within 30 days for operation of an affected boiler that was not in compliance with applicable requirements of Section 7.2.3, 7.2.5, and 7.2.6.

b. Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected boiler during malfunction or breakdown.

i. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction or breakdown.

ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected boiler was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected boiler was taken out of service.

c. The Permittee shall adhere to the requirements of 40 CFR 60.7, the affected CMS is subject to the reporting requirements of 40 CFR 60.7 (C), (D) and (E) which states:

(C) Each owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports

of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with § 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(D) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in § 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or

greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in § 60.7(c) shall both be submitted.

FIGURE 1—SUMMARY REPORT—GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE
(See 40CFR60.7 FOR FIGURE 1 –SUMMARY REPORT)

(E) (1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and

(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to

the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section. [40CFR60.7]

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

a. Compliance with Condition 7.2.3(c) and 7.2.6(a) is demonstrated by proper operating conditions of the affected boilers and Flue Gas Desulfurization System.

b. Compliance with Condition 7.2.3(d) and 7.2.6(a) is considered to be assured by the normal work practices and maintenance activities inherent in operation of the affected boilers.

c. Compliance with Condition 7.2.3(e) and 7.2.3(f) is demonstrated by proper operating conditions of the affected unit specific electrostatic precipitators.

d. Compliance with emission standards in Condition 7.2.3(c), (d) and (e) is determined by stack testing according to applicable USEPA reference methods.

e. Compliance with Opacity Limits in Condition 7.2.3(f) is determined via USEPA Reference Method 9 or by measurements taken by a properly certified and calibrated Continuous Emission Monitor.

f. Compliance with steam generation limits in Condition 7.2.5(b) is determined by continuous control reading output of total steam output (lb/hr).

g. Compliance with Coal Feed Rate limits given in Condition 7.2.5(e) is determined via weigh scale or throughput measuring device (lb coal/hr.)

h. Compliance with applicable recordkeeping and monitoring requirements is achieved by appropriate procedures set up and adhered to and overseen by responsible officials.

7.3 Unit 03: Coal Handling Equipment
Control: Fabric Filters and Nuveyor Ash Washing System

7.3.1 Description

Washed coal is delivered to the site in covered open-top trucks. Coal is either unladed directly onto conveyor A via the unloading hopper or stored in the coal pile. Conveyor A transfers coal to Conveyor B. Conveyor B transfers coal to the transfer/crusher house, where it may be crushed to ¾ inch size, if necessary. The coal crusher is not included in this emission unit. (See 7.4) Coal is transferred to Conveyor C in the transfer house. Conveyor C transports coal to the penthouse in the main building, where it is transferred to Conveyor D and then to the coal bunkers. Finally, coal is fed to the boilers via the respective boiler's feed system

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
03	Coal Handling System, B to C Transfer	Fabric Filter
	Coal Handling System, C to D Transfer	Fabric Filter
	Coal Handling System, D to Bunker Transfer	Fabric Filter
	Coal Bunkers	Fabric Filter
	Coal Storage Piles	None

7.3.3 Applicability Provisions

a. The "affected operations" for the purpose of these unit-specific conditions, are the emission units that are used solely for the purpose of transferring coal or other solid fuel from one location to another or for storage of coal or other solid fuel, without changing the size of the fuel, e.g., by crushing or screening, as described in Conditions 7.3.1 and 7.3.2.

b. The Permittee is authorized to continue operation of an affected operation in violation of the applicable requirements of Conditions 5.2.2(b) and 7.3.4(b) (35 IAC 212.123) and Condition 7.3.6(c) in the event of a malfunction or breakdown of an affected operation subject to the following provisions. This authorization is provided pursuant to 35 IAC 201.262 as the Permittee has submitted "… proof that continued operation is required to provide essential service, prevent risk of injury to personnel or severe damage to equipment":

i. This authorization only allows such continued operation as necessary to provide essential service, prevent risk of injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee. As provided by 35 IAC 201.265, this authorization does not shield the Permittee from enforcement for any such violation and shall only constitute a prima facie defense to such an enforcement action.

ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practicable repair the affected operation or remove the affected operation from service so that excess emissions cease. Unless the Permittee obtains an extension from the Illinois EPA, this shall be accomplished within 24 hours* or noon of the Illinois EPA's next business day*, whichever is later. The Permittee may obtain an extension for up to a total of 72 hours* from the Illinois EPA, Air Regional Office. The Illinois EPA, Air Compliance Section, in Springfield, may grant a longer extension if the Permittee demonstrates that extraordinary circumstances exist and the affected operation can not reasonably be repaired or removed from service within the allowed time, the affected operation can not be repaired or removed from service as soon as practicable; and the Permittee is taking all reasonable steps to minimize excess emissions, based on the actions that have been and will be taken.

* For this purpose and other related provisions, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the affected operation out of service.

iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.3.9(h) and 7.3.10(b).

iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.

7.3.4 Applicable Emission Standards

a. The affected operations shall comply with the standard in Condition 5.2.2(a), which addresses visible emissions of fugitive particulate matter, as defined by 35 IAC 211.2490, from the affected operations, pursuant to 35 IAC 212.301.

b. The affected operations shall comply with the standard in Condition 5.2.2(b), which addresses the opacity of the emission of smoke or other particulate matter from the affected operations, pursuant to 35 IAC 212.123.

c. i. The affected operations are subject to the NSPS for Coal Preparation Plants, 40 CFR 60 Subparts A and Y, because the affected operations commenced construction or modification after October 24, 1974. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

ii. Standard for Particulate Matter:

The affected operations shall not exhibit 20 percent opacity or greater into the atmosphere, pursuant to 40 CFR 60.252(c).

7.3.5 Non-Applicability of Regulations of Concern

a. The affected operations are not subject to 35 IAC 212.321 or 212.322 because of the disperse nature of the operations, as generally addressed by 35 IAC 212.323.

b. This permit is issued based on the affected operations not being subject to the requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM), because the individual affected operations do not meet the criteria of 40 CFR 64.2(a), i.e., the potential pre-control device emissions of particulate matter from each affected operation do not equal or exceed major source threshold levels.

7.3.6 Work Practices, Operational and Production Limits, and Emission Limitations

a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected operation in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].

b. i. The Permittee shall implement and maintain control measures for the affected operations, such as enclosure, natural surface moisture, application of dust suppressant, and use of dust collection devices, that minimize visible emissions of particulate matter and provide a reasonable assurance of compliance with the applicable emission standards and limits in Conditions 7.2.4 and 7.2.6, pursuant to Section 39.5(7)(a) of the Act.

ii. The Permittee shall operate and maintain each affected operation with the control measures identified in Condition 7.2.9(b).

7.3.7 Testing Requirements

None

7.3.8 Inspection Requirements

The Permittee shall perform inspections of the affected operations on at least a monthly basis, including associated control measures, while the affected operations are in use, to confirm compliance with the requirements of Condition 7.3.6(b). These inspections may be scheduled so that only a number of affected operations are reviewed during each inspection, provided however, that all affected operations shall be inspected at least once during each calendar quarter, pursuant to Section 39.5(7)(a) of the Act.

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected operations, pursuant to Section 39.5(7)(b) of the Act:

a. The Permittee shall keep a record, which shall be kept up to date, of the maximum operating capacity of each affected operation.

b. The Permittee shall maintain a record, which shall be kept up to date, of the control measures of the affected operations currently being implemented pursuant to Condition 7.2.6(b). These control measures are referred to as the "established control measures" in this subsection of this permit.

c. The Permittee shall maintain the following operating records:

    i. The amount of coal and other solid fuels received at the source, by type of fuel (tons/month and tons/year).

d. The Permittee shall maintain records of the following for the inspections required by Condition 7.2.8:

    i. Date and time the inspection was performed and name(s) of inspection personnel.

    ii. Area or specific operations inspected.

    iii. The observed condition of the established control measures for the inspected area or operations.

    iv. A description of any maintenance or repair associated with established control measures that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.

    v. A summary of compliance compared to the established control measures.

e. The Permittee shall maintain records of the following for each incident when any affected operation operated without the established control measures:

i. The date of the incident and identification of the affected operations that were involved.

ii. A description of the incident, including the established control measures that were not present or implemented; the established control measures that were present, if any; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.

iii. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.

iv. The length of time after the incident was identified that the affected operations continued to operate before established control measures were in place or the operations were shutdown (to resume operation only after established control measures were in place) and, if this time was more than one hour, an explanation why this time was not shorter, including a description of any mitigation measures that were implemented during the incident.

v. The estimated total duration of the incident, i.e., the total length of time that the affected operations ran without established control measures and the estimated amount of coal handled during the incident.

vi. A discussion of the probable cause of the incident and any preventative measures taken.

vii. A discussion whether Condition 7.3.4(b) may have been violated during the incident, with supporting explanation as needed.

f. The Permittee shall keep a maintenance and repair log for each item of air pollution control equipment, i.e., each dust suppressant application system and each dust collection device, associated with affected operations. This log shall list the date and nature of maintenance and repair activities performed on the

item of equipment. (See also Condition 9.6.1, Control Equipment Maintenance Records.)

g. To demonstrate compliance with Condition 7.3.6(c), the Permittee shall keep records for PM emissions from the silo baghouses (tons/month and tons/year), with supporting calculations.

h. Records for Continued Operation During Malfunctions And Breakdowns

Pursuant to 35 IAC 201.263, the Permittee shall maintain records, related to malfunction and breakdown for affected operations that as a minimum, shall include:

i. A maintenance and repair log for each affected operation and associated equipment, listing activities performed with date.

ii. Records for each incident when operation of an affected operation continued during malfunction or breakdown with excess emissions, as provided by Condition 7.3.3(b), including the following information:

A. Date and duration of malfunction or breakdown.

B. A description of the malfunction or breakdown.

C. The corrective actions used to reduce the quantity of emissions and the duration of the incident.

D. Confirmation of fulfillment of the requirements of Condition 7.3.10(b), as applicable, including copies of follow-up reports submitted pursuant to Condition 7.3.10(b)(ii).

E. If excess emissions occurred for two or more hours:

1. An explanation why continued operation of the affected operation was necessary.

2. The preventative measures planned or taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.

3. An estimate of the magnitude of excess emissions occurring during the incident.

7.3.10 Reporting Requirements

a. Reporting of Deviations

For the affected operations, the Permittee shall notify the Illinois EPA of deviations from permit requirements including deviations from applicable emission standards, inspection requirements and recordkeeping requirements with the quarterly reports required by Condition 7.3.10(a). Such notifications shall include a description of each incident and a discussion of the probable cause of deviation, any corrective actions taken and any preventative measures taken, pursuant to Section 39.5(7)(f)(ii) of the Act.

i. Notification within 30 days for operation of an affected operations that was not in compliance with applicable requirements in Conditions 7.3.6(c) that continued for more than 12 operating hours from the time that it was identified. Such notifications shall be accompanied by a copy of the records for the incident required by Condition 7.3.9(e).

ii. Notification with the quarterly reports required by Condition 7.3.10(a) for other deviations, including deviations from applicable emission standards, inspection requirements and recordkeeping requirements.

b. Reporting of Continued Operation During Malfunctions And Breakdowns

Pursuant to 35 IAC 201.263, the Permittee shall provide the following notifications and reports to the Illinois EPA, concerning incidents when operation of an affected operation continued during malfunction or breakdown with excess emissions as addressed by Condition 7.3.3(b).

i. The Permittee shall notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) as soon as possible during normal working hours for each incident in which the opacity from an affected operation exceeds 30 percent for more than five consecutive 6-minute averaging periods. (Otherwise, if opacity during a malfunction or

breakdown incident only exceeds 30 percent for less than five consecutive 6-minute averaging periods in a row, the Permittee need only report the incident in the quarterly report, in accordance with Condition 7.3.10(a)(ii).

ii. Upon conclusion of each incident that is two hours or more in duration, the Permittee shall submit a written follow-up notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed explanation of the event, an explanation why continued operation of an affected operation was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected operation was taken out of service.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected operations without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements or to properly obtain a construction permit in a timely manner for any activity constituting a modification as defined by 40 CFR 52.21 or for an activity for which a permit is required pursuant to 35 IAC 201.142.

a. Handling of solid fuels other than coal.

b. Operation of additional dust suppressant systems.

c. Operation of additional dust collection equipment.

d. Operation of replacement dust suppression systems or dust collection equipment that is of equal or greater effectiveness in controlling PM emissions than the device(s) being replaced.

7.3.12 Compliance Procedures

a. Compliance with Conditions 7.3.4(a), (b), and (c) is addressed by the control, inspection, and recordkeeping required by Conditions 7.3.6(a), 7.3.8, and 7.3.9, respectively.

b. Compliance with Condition 7.3.6(c) is determined based on the control, inspection, and recordkeeping required by Conditions 7.3.6(a), 7.3.8, and 7.3.9, respectively, and published emission factors for uncontrolled PM emissions, efficiency of control measures, and controlled PM emissions.

7.4 Coal Processing Equipment

7.4.1 Description

The Permittee prepares or processes coal for use as fuel in its boilers with a crusher that reduce the size of the coal to ¾ inch. Associated particulate matter (PM) emissions are controlled by various control measures including moisture content of the coal, enclosures and covers, and dust collection devices.

7.4.2 List of Emission Units and Air Pollution Control Equipment

The following is a list of the coal processing equipment and associated control systems at the source.

Emission Unit	Description	Emission Control Equipment
04	Coal Crusher	Enclosures and Covers, and Dust Collection Devices

7.4.3 Applicability Provisions

a. An "affected process" for the purpose of these unit-specific conditions, is an individual process emission unit that prepares coal for use as a fuel by crushing the coal as described in Conditions 7.4.1 and 7.4.2.

b. The Permittee is authorized to continue operation of an affected process in violation of the applicable requirements of Condition 5.2.2(b) (35 IAC 212.123) and Condition 7.4.4(d) in the event of a malfunction or breakdown of an affected process subject to the following provisions. This authorization is provided pursuant to 35 IAC 201.262 as the Permittee has submitted "… proof that continued operation is required to provide essential service, prevent risk of injury to personnel or severe damage to equipment.":

i. This authorization only allows such continued operation as necessary to provide essential service, prevent risk of injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee. As provided by 35 IAC 201.265, this authorization does not shield the Permittee from enforcement for any such violation and shall only constitute a prima facie defense to such an enforcement action.

ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practicable repair the affected process or remove the affected process from service so that excess emissions cease. Unless the Permittee obtains an extension from the Illinois EPA, this shall be accomplished within 24 hours* or noon of the Illinois EPA's next business day*, whichever is later. The Permittee may obtain an extension for up to a total of 72 hours* from the Illinois EPA, Air Regional Office. The Illinois EPA, Air Compliance Section, in Springfield, may grant a longer extension if the Permittee demonstrates that extraordinary circumstances exist and the affected process can not reasonably be repaired or removed from service within the allowed time, the affected process can not be repaired or removed from service as soon as practicable; and the Permittee is taking all reasonable steps to minimize excess emissions, based on the actions that have been and will be taken.

* For this purpose and other related provisions, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the affected process out of service.

iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.4.9(h) and 7.4.10(b).

iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.

7.4.4 Applicable Emission Standards

a. The affected processes shall comply with the standard in Condition 5.2.2(a), which addresses visible emissions of fugitive particulate matter, as defined by 35 IAC 211.2490, from the affected processes, pursuant to 35 IAC 212.301.

b. The affected processes shall comply with the standard in Condition 5.2.2(b), which addresses the opacity of the emission of smoke or other particulate matter from the affected processes, pursuant to 35 IAC 212.123.

c. i. The affected processes are subject to the NSPS for Coal Preparation Plants, 40 CFR 60 Subparts A and Y, because the affected processes commenced construction or modification after October 24, 1974. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

ii. Standard for Particulate Matter:

The affected processes shall not exhibit 20 percent opacity or greater into the atmosphere, pursuant to 40 CFR 60.252(c).

d. The affected processes are subject to 35 IAC 212.321(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].

7.4.5 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected processes not being subject to the requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM), because the individual affected process does not meet the criteria of 40 CFR 64.2(a), i.e., the potential pre-control device emissions of particulate matter from each affected process do not equal or exceed major source threshold levels.

7.4.6 Work Practices, Operational and Production Limits, and Emission Limitations

a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected process

in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].

b. i. The Permittee shall implement and maintain control measures for the affected processes, such as enclosure, natural surface moisture, application of dust suppressant, and use of dust collection devices, that minimize visible emissions of particulate matter and provide a reasonable assurance of compliance with the applicable emission standards in Condition 7.4.4 and 7.4.6, pursuant to Section 39.5(7)(a) of the Act.

ii. The Permittee shall operate and maintain each affected process with the control measures identified in Condition 7.4.9(b).

7.4.7 Testing Requirements

None

7.4.8 Inspection Requirements

The Permittee shall perform inspections of each affected process on at least a weekly basis, including associated control measures, to confirm compliance with the requirements of Condition 7.4.6(b).

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected processes, pursuant to Section 39.5(7)(b) of the Act:

a. The Permittee shall keep a record, which shall be kept up to date, of the maximum operating capacity of the affected processes.

b. i. The Permittee shall maintain a record, which shall be kept up to date, of the control measures of the affected processes currently being implemented pursuant to Condition 7.4.6(b). These control measures are referred

to as the "established control measures" in this subsection of this permit.

ii. Accompanying this record, the Permittee shall maintain a demonstration that confirms that the above established practices are sufficient to assure compliance with Condition 7.4.4(d) at the maximum process weight rate at which each affected process can be operated (tons coal/hour), with supporting emission calculations and documentation for the emission factors and the efficiency of the control measures being relied upon by the Permittee (see also Condition 7.4.12).

c. The Permittee shall maintain records of the following for the inspections required by Condition 7.4.8, for each affected process:

i. Date and time the inspection was performed and name(s) of inspection personnel.

ii. Area or specific operations inspected.

iii. The observed condition of the established control measures for the inspected area or operations.

iv. A description of any maintenance or repair associated with established control measures that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.

v. A summary of compliance compared to the established control measures.

d. The Permittee shall maintain records of the following for each incident when any affected process operated without the established control measures:

i. The date of the incident and identification of the affected process(es) that were involved.

ii. A description of the incident, including the established control measures that were not present or implemented; the established control measures that were present, if any;

other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.

iii. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.

iv. The length of time after the incident was identified that the affected process(es) continued to operate before established control measures were in place or the operations were shutdown (to resume operation only after established control measures were in place) and, if this time was more than one hour, an explanation why this time was not shorter, including a description of any mitigation measures that were implemented during the incident.

v. The estimated total duration of the incident, i.e., the total length of time that the affected process(es) ran without established control measures and the estimated amount of coal processed during the incident.

vi. A discussion of the probable cause of the incident and any preventative measures taken.

vii. A discussion whether Condition 7.4.4(b) may have been violated during the incident, with supporting explanation as needed.

e. The Permittee shall keep a maintenance and repair log for each item of air pollution control equipment, i.e., each dust suppressant application system and each dust collection device, associated with affected process(es). This log shall list the date and nature of maintenance and repair activities performed on the item of equipment. (See also Condition 9.6.1, Control Equipment Maintenance Records.)

h. Records for Continued Operation During Malfunctions and Breakdowns

Pursuant to 35 IAC 201.263, the Permittee shall maintain records, related to malfunction and breakdown for an affected process that as a minimum, shall include:

i. A maintenance and repair log for each affected process and associated equipment, listing activities performed with date.

ii. Records for each incident when operation of an affected process continued during malfunction or breakdown with excess emissions, as provided by Condition 7.4.3(b), including the following information:

A. Date and duration of malfunction or breakdown.

B. A description of the malfunction or breakdown.

C. The corrective actions used to reduce the quantity of emissions and the duration of the incident.

D. Confirmation of fulfillment of the requirements of Condition 7.4.10(b), as applicable, including copies of follow-up reports submitted pursuant to Condition 7.4.10(b)(ii).

E. If excess emissions occurred for two or more hours:

1. An explanation why continued operation of the affected process was necessary.

2. The preventative measures planned or taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.

3. An estimate of the magnitude of excess emissions occurring during the incident.

7.4.10 Reporting Requirements

a. Reporting of Deviations

For the affected processes, the Permittee shall notify the Illinois EPA of deviations from permit requirements including deviations from applicable emission standards, inspection requirements and recordkeeping requirements. Such notifications shall include a description of each incident and a

discussion of the probable cause of deviation, any corrective actions taken and any preventative measures taken, pursuant to Section 39.5(7)(f)(ii) of the Act.

b. Reporting of Continued Operation During Malfunctions and Breakdowns

Pursuant to 35 IAC 201.263, the Permittee shall provide the following notifications and reports to the Illinois EPA concerning incidents when operation of an affected process continued during malfunction or breakdown with excess emissions as addressed by Condition 7.4.3(b).

i. The Permittee shall notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) as soon as possible during normal working hours for each incident in which the opacity from an affected process exceeds 30 percent for more than five consecutive 6-minute averaging periods. (Otherwise, if opacity during a malfunction or breakdown incident only exceeds 30 percent for less than five consecutive 6-minute averaging periods in a row, the Permittee need only report the incident in the quarterly report, in accordance with Condition 7.4.10(a).

ii. Upon conclusion of each incident that is two hours or more in duration, the Permittee shall submit a written follow-up notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed explanation of the event, an explanation why continued operation of an affected process was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected process was taken out of service.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected processes without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements or to properly obtain a construction permit in a timely manner for any activity constituting a modification as defined by 40 CFR 52.21 or for an activity for which a permit is required pursuant to 35 IAC 201.142.

a. Handling of solid fuels other than coal.

b. Operation of additional dust suppressant systems.

c. Operation of additional dust collection equipment.

d. Operation of replacement dust suppression systems or dust collection equipment that is of equal or greater effectiveness in controlling PM emissions than the device(s) being replaced.

7.4.12 Compliance Procedures

a. Compliance with Conditions 7.4.4(a), (b), and (c) is addressed by the control, inspection, and recordkeeping required by Conditions 7.4.6(a), 7.4.8, and 7.4.9, respectively.

b. Compliance with Condition 7.4.4(d) is determined based on the control, inspection, and recordkeeping required by Conditions 7.4.6(a), 7.4.8, and 7.4.9, respectively, and published emission factors for uncontrolled PM emissions, efficiency of control measures, and controlled PM emissions as identified in the records required by Condition 7.4.9(b) or by the use of measured emissions factors

7.5 Material Handling Systems

7.5.1 Description

The material handling systems consist of ash, limestone and gypsum handling equipment.

The ash handling system consists of an ash silo with baghouse and ash load-out. Ash from the boilers is conveyed to the ash silo. The ash silo is equipped with a baghouse. The ash load-out utilizes a water spray to control emissions during load-out.

The Limestone Handling System is used to supply limestone slurry for the Flue-Gas Desulfurization (FGD) System. Sized limestone is trucked to the site and pneumatically transported to the limestone storage silo. Limestone PM emissions are controlled via a mechanical baghouse dust collector and the limestone silo vent passive dust collector. Gypsum is a by-product of the FGD operation.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
04	Ash Handling System	Bag Filter, Nuveyor Ash Washer
	Limestone Handling System	Passive Vent and Silo mechanical baghouse

7.5.3 Applicability Provisions and Applicable Regulations

a. The "affected material handling systems" for the purpose of these unit-specific conditions, are the emission units described in Conditions 7.5.1 and 7.5.2.

b. The affected material handling systems are subject to the emission limits identified in Condition 5.2.2.

c. The affected material handling systems are subject to 35 IAC Section 212.321, which states:

i. Except as further provided in this Part, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of this Section.

ii. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

$$E = C + A\ (P)^B$$

Where:

P = Process weight rate

E = Allowable emission rate

A. Up to process weight rates of 408 Mg/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	Kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

B. For process weight rate greater than or equal to 408 Mg/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	Kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16

iii. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 14, 1972

Metric		English	
P	E	P	E
Mg/hr	Kg/hr	T/hr	lbs/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.20	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.15
4.5	2.7	5.00	6.00
9.	3.9	10.00	8.70
13.	4.8	15.00	10.80

18.	5.7	20.00	12.50
23.	6.5	25.00	14.00

Metric		English	
P	E	P	E
Mg/hr	Kg/hr	T/hr	lbs/hr
27.	7.1	30.00	15.60
32.	7.7	35.00	17.00
36.	8.2	40.00	18.20
41.	8.8	45.00	19.20
45.	9.3	50.00	20.50
90.	13.4	100.00	29.50
140.	17.0	150.00	37.00
180.	19.4	200.00	43.00
230.	22.	250.00	48.50
270.	24.	300.00	53.00
320.	26.	350.00	58.00
360.	28.	400.00	62.00
408.	30.1	450.00	66.00
454.	30.4	500.00	67.00

[35 IAC 212.321]

7.5.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected material handling units not being subject to 35 IAC 212.322 because the affected material handling units were modified after April 14, 1972.

b. This permit is issued based on the affected material handling units not being subject to New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants, 40 CFR Part 60, Subparts A and OOO, because the affected operations do not meet the definition of a nonmetallic mineral processing plant because there is no equipment used to crush or grind limestone, fly ash or gypsum.

7.5.5 Control Requirements

a. Control systems for the affected material handling units must perform so as to achieve compliance with the limits given in Condition 7.5.3.

b. The Permittee shall follow good operating practices for the control equipment including periodic inspection, routine maintenance and prompt repair of defects.

7.5.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.5.7 Operating Requirements

None

7.5.8 Inspection Requirements

a. The affected material handling units are subject to 35 IAC 212.324(f), which states: Proper maintenance shall include the following minimum requirements:

i. Visual inspections of air pollution control equipment. [35 IAC 212.324(f)(1)]

ii. Maintenance of an adequate inventory of spare parts. [35 IAC 212.324(f)(2)]

iii. Expeditious repairs, unless the emission unit is shut down. [35 IAC 212.324(f)(3)]

b. The fabric filters used to control particulate matter emissions from the affected material handling units shall be monitored for visible emissions and pressure drop (inlet to outlet) on a daily basis.

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected material handling unit to demonstrate compliance with conditions 5.5.1 and 7.5.3, pursuant to Section 39.5(7)(b) of the Act:

a. Throughput of product rate (process weight rate) for the systems in tons/month and tons/year.

b. The hours of operation for each dryer so as to determine the process weight rate on an hourly basis.

c. The aggregate monthly and yearly Particulate Matter emissions from the system based on the use of applicable emission factors, the hours of operation and the typical hourly emission rate, with supporting calculations.

d. The aggregate monthly and yearly Particulate Matter emissions from the system, based on the use of applicable emission factors based on the operating

schedule and the typical hourly emission rate, with supporting calculations.

e. Pursuant to 35 IAC 212.324(g), the Permittee shall keep:

i. Written records of inventory and documentation of inspections, maintenance, and repairs of all air pollution control equipment. [35 IAC 212.324(g)(1)]

ii. The owner or operator shall document any period during which any process emission unit was in operation when the air pollution control equipment was not in operation or was malfunctioning so as to cause an emissions level in excess of the emission limitation. These records shall include documentation of causes for pollution control equipment not operating or such malfunction and shall state what corrective actions were taken and what repairs were made. [35 IAC 212.324(g)(2)]

iii. A written record of the inventory of all spare parts not readily available from local suppliers shall be kept and updated. [35 IAC 212.324(g)(3)]

iv. Copies of all records required by Condition 7.5.9 shall be submitted to the Agency within ten (10) working days after a written request by the Agency. [35 IAC 212.324(g)(4)]

v. The records required under Condition 7.3.9 shall be kept and maintained for at least five (5) years and shall be available for inspection and copying by Agency representatives during working hours.

f. Records of daily baghouse pressure drop and visible emissions for all baghouses shall be kept for a period of five years from date of entry.

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected material handling units with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Upon written request by the Agency, a report shall be submitted to the Agency for any period specified in the request stating the following: the dates during which any process emission unit was in operation when the air pollution control equipment was not in operation or was not operating properly, documentation of causes for pollution control equipment not operating or not operating properly, and a statement of what corrective actions were taken and what repairs were made. [35 IAC 212.324(g)(6)]

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.5.12 Compliance Procedures

Particulate matter emissions shall be determined using the records from condition 4.9, an assigned control efficiency for each dust collector based either on stack testing or manufacturer's guarantees and the following emission factors from AP-42.

For unloading of ash or limestone: 2.2 lb PM/ton throughput. (AP-42, Table 11.17-4, Lime Manufacturing.)

For transfer and conveying of ash or limestone: 1.5 lb PM/ton throughput. (AP-42, Table 11.17-4, Lime Manufacturing.)

PM emissions = PWR x eff. x (1 – control efficiency)

7.6 Unit: Two Combustion Turbines with Two Duct Burners
Control: CO Catalyst

7.6.1 Description

Two combined cycle combustion turbines are process emission units manufactured by Solar Co. Each is a Titan Model 130-19501S rated at 134.8 mmBtu/hr on natural gas and capable of combusting #2 diesel fuel. Exhaust from each turbine is used to generate steam in either of two Heat Recovery Steam Generators (HRSGs). Supplemental heat is added to the turbine exhaust stream via either of two approximately 80 mmBtu/hr duct burners, which are fired by natural gas. The turbine/duct burner/HRSG system is exhausted through a common stack, and is used to generate electricity. CO emissions are controlled by CO catalyst.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
06	Combustion Turbine 1 (134.38 mmBtu/Hr)	CO Catalyst
	Duct Burner 1 (80 mmBtu/Hr) with HRSG1	
	Combustion Turbine 2 (134.38 mmBtu/Hr)	CO Catalyst
	Duct Burner 2 (80 mmBtu/Hr) with HRSG2	

7.6.3 Applicability Provisions and Applicable Regulations

a. i. An "affected turbine" for the purpose of these unit-specific conditions, is a turbine described in Conditions 7.6.1 and 7.6.2.

ii. An "affected HRSG" for the purpose of these unit-specific conditions, is a Duct Burner and Heat Recovery Steam Generator as described in Conditions 7.6.1 and 7.6.2.

b. The affected turbines and affected HRSGs are subject to the emission limits identified in Condition 5.2.2.

c. i. The affected turbines are subject to the NSPS for Stationary Gas Turbines, 40 CFR 60 Subparts A and GG, because the heat input at peak load is equal to or greater than 10.7 gigajoules per hour (10 mmBtu/hr), based on the lower heating value of the fuel fired and the affected turbines commenced construction, modification, or reconstruction after October 3, 1977. The Illinois EPA administers the NSPS for subject sources in

Illinois pursuant to a delegation agreement with the USEPA.

A. Standard for Nitrogen Oxides:

Pursuant to 40 CFR 60.332(b), electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of 40 CFR 60.332(a)(1). Pursuant to 40 CFR 60.332(a)(1), no owner or operator of an affected turbine shall cause to be discharged into the atmosphere from such gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0075 \frac{(14.4)}{Y} + F$$

Where:

STD = Allowable NO_x emissions (percent by volume at 15 percent oxygen and on a dry basis).

Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO_x emission allowance for fuel-bound nitrogen calculated from the nitrogen content of the fuel as follows:

Fuel-Bound Nitrogen (Percent by Weight)	F (NO_x Percent by Volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	0.04 (N)
$0.1 < N \leq 0.25$	0.04 + 0.0067(N - 0.1)
$N > 0.25$	0.005

Where:

N = The nitrogen content of the fuel (percent by weight) determined in

according with Condition 7.6.8. [40 CFR 60.332(a)(1)]

B. Standard for Sulfur Dioxide

1. No owner or operator of an affected turbine shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis [40 CFR 60.333(a)].

2. No owner or operator of an affected turbine shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight [40 CFR 60.333(b)].

ii. The affected HRSGs are subject to the NSPS for Small Industrial-Commercial Institutional Steam Generating Units, 40 CFR 60 Subparts A and Dc, because the construction, modification, or reconstruction is commenced after June 9, 1989 and has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr). The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA. The Permittee must comply with 40 CFR 60.48 c).

d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm. [35 IAC 214.301]

e. No person shall cause or allow the emission of carbon monoxide into the atmosphere from any fuel combustion emission source with actual heat input greater than 10 mmBtu/hr to exceed 200 ppm, corrected to 50 percent excess air. [35 IAC 216.121]

f. The affected turbine and affected HRSG shall comply with the standard in Condition 5.2.2(b), which addresses the opacity of the emission of smoke or other particulate matter from the affected turbine pursuant to 35 IAC 212.123.

g. The affected HRSGs are subject to 40 CFR 60, Subparts A and Dc. For the purposes of a natural gas fired Small Industrial-Commercial-Institutional Steam Generating Unit between 10 mmBtu/hr and 100 mmBtu/hr,

these regulations, the NSPS requires only a notification requirement. There are no applicable emission standards for the affected HRSGs and duct burners.

Note: These provisions are not intended to prevent the Illinois EPA from developing streamlined approaches for compliance the affected turbines and affected HRSGs, which function in series with the exhaust through each affected HRSG, with Subpart GG and Dc of the NSPS respectively.

7.6.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on an affected turbine not being subject to the requirements of 35 IAC 212.321 or 212.322, because due to the unique nature of such unit, a process weight rate can not be set so that such rules can not reasonably be applied.

b. An affected turbine is not subject to 35 IAC 217.641, because an affected turbine is not by definition a fuel combustion unit.

c. An affected turbine is not subject to 35 IAC 216.121, because an affected turbine is not by definition a fuel combustion unit.

d. The provisions of 35 IAC 215.301 and 302, Use of Organic Material, shall not apply to fuel combustion emission sources [35 IAC 215.303].

e. The affected turbines and affected HRSGs are not subject to the requirements of the NO_x Compliance Programs of 35 IAC Part 217 because each affected turbine and HRSG has a nameplate capacity less than 25 MWe.

f. Pursuant to 40 CFR 72.6(b)(4)(i), cogeneration plants that will not be selling one third, or more, of its potential electrical output or more than 219,000 MWe-hours actual electric output on an annual basis is not subject to the requirements of the Acid Rain Program.

g. This permit is issued based on the affected turbines and affected HRSGs not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected HRSGs and affected turbines do not use an add-on control device to achieve compliance with an emission limitation or standard.

7.6.5 Operational and Production Limits and Work Practices

a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected turbine and affected HRSG in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].

b. Natural gas or #2 fuel oil shall be the only fuel fired in the affected turbines.

c. Natural gas shall be the only fuel fired in the affected duct burners.

d. The affected HRSGs shall be equipped, operated, and maintained with a CO catalyst system to control CO emissions.

e. i. Fuel oil usage in each turbine shall not exceed 500,000 gallons/month and 1,535,000 gallons/year.

ii. Natural gas usage in each turbine shall not exceed 150 million scf/month and 1,310 million scf/year.

iii. Natural gas usage in the duct burners associated with the turbines shall not exceed 51.9 million scf/month and 623 million scf/year.

iv. The above limitations were established in Permit 01010053, pursuant to PSD, 40 CFR 52.21. These limitations ensure that the construction and/or modification addressed in these permit(s) does not constitute a major modification pursuant to Title I of the CAA, specifically the federal PSD rules [T1].

v. This permit is issued based on the construction and operation of the new emission units not constituting a major modification subject to the federal rules for Prevention of Significant Deterioration of Air Quality, (PSD) 40 CFR 52.21. For emissions of NO_x this

determination relies upon contemporaneous decreases in NO_x emissions from existing units such that the net changes in NO_x emissions from this project is not significant when taken with creditable decreases from the installation of low NO_x burners to existing boilers (existing boilers 2, 3, and 4) along with associated creditable decreases. [T1]

vi. Contemporaneous with affected turbines and HRSGs, the annual fuel consumption by existing boilers 2, 3 and 4 (Emission Unit 1) combined shall not exceed 2,659 million standard cubic feet of natural gas and 244,900 gallons of oil. [T1]

vii. Compliance with annual limitations shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total). The above limitation was established in Permit 01010053. [T1]

7.6.6 Emission Limitations

a. In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected turbines and affected HRSGs are subject to the following:

i. Emissions from each turbine, including the duct burners, shall not exceed the following limits:

	Natural Gas Mode (Lbs/Hour)	Fuel Oil Mode (Lbs/Hour)
NO_x	22.24	61.48
CO	4.08	4.13
SO_2	0.51	135.77
VOM	5.38	0.78
PM	1.50	2.22

These limits are based on emission data in the application including the maximum firing rate of turbine and duct burners, and CO control efficiency (80%).

ii. Annual emissions from the turbines including the duct burners, in total shall not exceed the following limits:

	(Tons/Year)
NO_x	241.3
CO	34.5
SO_2	14.4
VOM	8.5
PM	13.2

iii. Contemporaneously, emissions of existing Boilers #2, 3 and 4 each shall not exceed the following limits:

	Emission Factor	
	Gas Firing (Lbs/mmscf)	Oil Firing (Lbs/1,000 Gal)
NO_x	100	28.94
CO	125	20.70

iv. Contemporaneously, annual emissions of existing Boilers #2, 3, and 4 combined shall not exceed the following limits:

	(Tons/Month)	(Tons/Year)
NO_x	18.0	145.36
CO	21.6	168.74

These limits are based on information included in the application and established as limits by this permit including the maximum usage, fuel usage and the applicable emission factors for low-NO_x burners. [T1]

v. These limits and requirements and associated recordkeeping and reporting requirements become effective upon initial startup of the turbines. If the startup of the second turbine is delayed, the Illinois EPA may establish alternative limits and requirements to assure sufficient contemporaneous decreases in NO_x emissions for operation of a single turbine.

vi. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total). [T1]

vii. The above limitations were established in Permit 01010053, pursuant to PSD, 40 CFR 52.21. These limitations ensure that the construction and/or modification addressed in these permit(s) does not constitute a major modification pursuant to Title I of the CAA, specifically the federal PSD rules. For emissions of NOx this determination relies upon contemporaneous decreases in NOx emissions from existing units such that the net changes in NO_x emissions from this project is not significant as shown in Tables I, II, II and IV (see Condition 7.6.11) when taken with creditable decreases from the installation of low NO_x burners to existing Boilers #2, 3 and 4 along with associated creditable decreases. [T1]

7.6.7 Testing Requirements

a. Within 60 days after achieving the maximum production rate at which the emission units will be operated but not later than 180 days after initial startup, the Permittee shall have emissions testing performance for each turbine/duct burners and for selected boilers for NO_X and CO at its expense by a testing service approved by the Illinois EPA.

b. The following methods and procedures shall be used for testing of emissions:

i. USEPA Reference Test Methods shall be used for emission testing, including the following methods:

Carbon Monoxide	USEPA Method 10
Nitrogen Oxides	USEPA Method 7

ii. Measurements for NO_x from the turbines/duct burners shall be conducted in accordance with 40 CFR 60.335, as specified below, unless alternative testing procedures are approved by USEPA pursuant to 40 CFR 60.8(b):

A. The NO_x emissions shall be computed for each run using the equation in 40 CFR 60.335(c)(1).

B. The span values for Method 20 shall be 300 ppm of NO_x and 21 percent O_2, pursuant to 40 CFR 60.335(c)(3).

C. The NO_x emissions shall be determined separately for both gas and oil firing, at four points in the normal operating range of the turbine, including the minimum point in the range and peak load, pursuant to 40 CFR 60.335(c)(2), and for the combined operations of the turbine and duct burners.

D. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer, pursuant to 40 CFR 60.335(c)(2).

c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing and shall include as a minimum:

i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

ii. The specific conditions under which testing shall be performed including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source will be tracked and recorded.

iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.

iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.

d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

e. Three copies of the Final Reports for these tests shall be forwarded to the Illinois EPA within 30 days after the test results are compiled and finalized. The Final Report from testing shall contain a minimum:

i. A summary of results;

ii. General information;

iii. Description of test method(s), including a description of sampling points, sampling train, analysis equipment, and test schedule;

iv. Detailed description of test conditions, including:

A. Fuel consumption;

B. Turbine firing rate;

C. Duct burner firing rate; and

D. Turbine/steam turbine output rate.

v. Data and calculations, including copies of all raw data sheets and records of laboratory analysis, sample calculations, and data on equipment calibration.

f. The affected turbines shall comply with the applicable testing requirements of 40 CFR 60.335.

7.6.8 Monitoring Requirements

a. i. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60 Subpart GG shall install and operate a continuous monitoring system to monitor and record the fuel consumption in the affected turbines [40 CFR 60.334(a)].

ii. The affected turbines shall comply with the applicable monitoring requirements of 40 CFR 60.334(b) except monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the affected turbines, since there is no fuel-bound nitrogen and since the free nitrogen does not contribute appreciable to NO_x emissions.

7.6.9 Recordkeeping Requirements

a. In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected turbines and affected HRSGs to demonstrate compliance with Conditions 5.5.1, 7.6.3, 7.6.5, and 7.6.6, pursuant to Section 39.5(7)(b) of the Act:

i. A maintenance and repair log for each affected turbine and affected HRSG, listing activities performed with date.

ii. The sulfur content of the fuels fired in the affected turbines and affected HRSGs.

iii. A. Fuel consumption for the affected turbines and affected HRSGs, scf/month and scf/year, and gal/day and gal/year, respectively of natural gas or fuel oil fired mode.

B. Fuel consumption for the affected HRSGs, scf/month and scf/year.

iv. Operating hours for the affected turbines and affected HRSGs, hr/month and hr/year.

v. Heat content of the fuels being fired in the affected turbines and affected HRSGs.

b. The Permittee shall maintain a file of the following items:

i. Manufacturers specification of rated turbine and duct burner load;

ii. Manufacturers specifications for the low-NO_x burners installed in existing Boilers #2, 3 and 4;

iii. Heat and sulfur content of the fuels being fired in the turbines and existing boilers 2, 3 and 4, with supporting documentation, on a quarterly basis; and

iv. A copy of the Final Report(s) for emission testing conducted pursuant to Condition 7.6.7.

c. The Permittee shall maintain the following daily and monthly operating records:

i. The quantity of fuel consumed for the turbine (standard cubic feet and gallons);

ii. The quantity of fuel consumed for the duct burner (standard cubic feet);

iii. The quantity of fuel consumed for the existing boilers (standard cubic feet and gallons;

d. The Permittee shall keep inspection, maintenance and repair logs with dates and the nature of such activities for the turbines, (turbine burner, duct burner, and CO catalyst system) and existing boilers (low-NO_x burners) 2, 3 and 4.

e. The Permittee shall maintain the following records related to emissions from the turbines:

i. Other data, not addressed above, used or relied upon by the Permittee to determine emissions;

ii. Monthly emissions of NO_X, CO, SO_2, VOM, and PM from each turbine, including the duct burners. Emissions shall be calculated based on fuel consumption and operating data and site-specific emission factors developed from emission test data (NO_x and CO) and standard emission factors (PM, VOM, and SO_2) or by other procedures approved by the Illinois EPA in the source's CAAPP permit;

iii. The annual emissions of NO_x, SO_2, PM, VOM and CO for each month using current months data and previous 11 months data with supporting calculations.

f. The Permittee shall maintain the following records related to emissions of NO_x and CO from existing Boilers #2, 3 and 4:

i. Other data, not addressed above, used or relied upon by the Permittee to determine emissions;

ii. Monthly emissions of NO_X, CO, SO_2, VOM, and PM from each of the existing boilers 2, 3, and 4. Emissions shall be calculated based on fuel consumption and operating data and site-specific emission factors developed from emission test data (NO_x and CO) and standard emission factors (PM, VOM, and SO_2) or by other procedures approved by the Illinois EPA in the source's CAAPP permit;

iii. The annual emissions of NO_x, SO_2, PM, VOM and CO for each month using current months data and previous 11 months data with supporting calculations.

g. The Permittee shall maintain records that identify any day in which emissions or operation exceed an applicable standard or limitation.

h. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

7.6.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of deviations of an affected turbine and/or affected HRSG with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

i. Notification within 30 days for operation of an affected turbine and/or affected HRSG that was not in compliance with applicable requirements of Section 7.6.3, 7.6.5, and 7.6.6.

b. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street

Collinsville, Illinois 62234

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.6.12 Compliance Procedures

a. i. Compliance with Condition 7.6.3(c)(i)(A) is considered to be assured by the use of natural gas because natural gas contains negligible fuel bound nitrogen.

ii. Compliance with Condition 7.6.3(c)(i)(B) is demonstrated by the monitoring requirements of 7.6.8 and by the recordkeeping requirements of 7.6.9.

b. Compliance with Condition 7.6.3(d) is demonstrated by proper operating conditions of the affected turbines.

c. Compliance with the emission limit for NO_x and CO in Conditions 7.3 shall be demonstrated by proper operation of emission units in a manner that is consistent with that during emission testing in accordance by Condition 7.6.6 that shows compliance with applicable short-term limits, based on the records required by Condition 11 and other relevant data.

d. Compliance with the emission limits for PM, VOM and SO_2 in Conditions 7.3 and 7.6 shall be determined using the recordkeeping requirement of this permit and standard emission factors from USEPA's Compliance of Air Pollutant Emission Factors, and AP-42 as follows:

	Natural Gas Mode Turbines (Lb/mmBtu)	Oil Mode Turbines (Lb/mmBtu)	Duct Burner (Lb/mmBtu)
PM	0.007	0.012	0.008
VOM	0.003	0.001	0.009
SO_2	0.003	0.051	0.001

7.7 The Veterinary Medicine Hospital Incinerator and the Erwin R. Madigan (ERML) Incinerator

7.7.1 The Veterinary Medicine Hospital Incinerator is used to burn Type 4 and Type 7 wastes, which are generated on site. The incinerator is an Environmental Control Products, Inc. Model 480E designed to burn 410 pounds per hour of Type 4 waste. It utilizes variable rate natural gas burners on the primary and secondary combustion chambers. The waste profile consists primarily of animal carcasses, bedding and tissue.

The Edwin R. Madigan Laboratory (ERML) Incinerator is used to burn Type 4 waste, which is generated on site. The ERML is a specialized research facility for the College of Agricultural, Consumer and Environmental Sciences. The Joy Energy Systems, Inc. Model 750 TL incinerator is designed to burn 500 lb/hr of Type 4 waste. It is a multiple chamber, manually fed, batch-operated unit whose current waste profile consists exclusively of animal carcasses.

7.7.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
06	Veterinary Medicine Hospital Incinerator	Thermal Oxidizer
	Edwin R. Madigan Laboratory (ERML) Incinerator	Thermal Oxidizer

7.7.3 Applicability Provisions and Applicable Regulations

a. The "affected incinerators" for the purpose of these unit-specific conditions, are the incinerators described in 7.7.1 and 7.7.2.

b. Each affected incinerator is subject to the emission limits identified in Condition 5.2.2.

c. The affected incinerators are subject to 35 IAC 212.181(d) which states: Emissions of PM from any incinerator, for which construction or modification commenced on or after April 14, 1972, shall not exceed 229 mg/scm (0.1 gr/scf) of effluent gases, corrected to 12 percent carbon dioxide [35 IAC 212.181(d)].

d. The affected incinerators are subject to 35 IAC 216.141 which states: Emissions of CO from any incinerator shall not exceed 500 ppm, corrected to 50 percent excess air [35 IAC 216.141].

e. The Permittee shall comply with applicable limits on radionuclide emissions established by 40 CFR 61, Subpart I, (National Emission Standards for Radionuclide Emissions from facilities licensed by the Nuclear Regulatory Commission (NRC) and facilities not covered by Subpart H.

7.7.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected incinerators not being subject to the New Source Performance Standards (NSPS) for hospital, medical and infectious waste incinerators (HMIWI), 40 CFR Part 60, Subpart Ce, because the Permittee has applied for co-fired combustor exemption status. The exemption can be obtained when the incinerated hospital, medical, infectious wastes are ten percent or less of the other fuels and wastes incinerated.

b. This permit is issued based on the affected incinerators not being subject to 35 IAC Subpart M for hospital, medical and infectious waste incinerators (HMIWI) because the Permittee has applied for co-fired combustor exemption status. The exemption can be obtained when the incinerated hospital, medical, infectious wastes are ten percent or less of the other fuels and wastes incinerated.

7.7.5 Operating Requirements, Production Limits, and Work Practices

a. The secondary combustion chamber of each incinerator shall be preheated to the manufacturer’s recommended temperature but not lower than 1400 F prior to introducing waste into the incinerator.

b. The 1400 degree F temperature shall be maintained until burnout of waste in the primary chamber is completed.

c. Each incinerator shall be operated pursuant to written operating procedures, which shall address the above requirements and other practices for proper operation of the incinerators.

d. Individuals that operate incinerators shall be trained in the proper operating procedures for the incinerators.

e. All waste burned shall be generated on site.

f. The burn rate for the Veterinary Medicine Hospital shall not exceed 400 lb/hr for Type 4 Waste and type 7 waste combined. These limits were established in permit 83040011. [T1]

g. The burn rate for the ERML incinerator shall not exceed 500 lb/hr (728 tons/year) type 4 waste. Only type 4 waste shall be incinerated in the ERML Incinerator. This limit was established in permit 89050090. [T1]

h. HMIWI wastes shall comprise less than 10% of all wastes fired.

i. The maximum hours of operation of the ERML incinerator shall not exceed 2912 hours per year. This limit was established in permit 89050090 [T1]

j. The maximum hours of operation of the Veterinary Hospital Incinerator shall not exceed 906 hours per year. This limit was established in permit 83040011 [T1]

7.7.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5.1, the incinerators are subject to the following:

a. Emissions and operation of the ERML incinerator shall not exceed the following limits:

Pollutant	(Lb/Hr)	(Ton/Yr)
PM	0.43	0.62
CO	3.5	5.1

These limits were established in permit 89050090. They are based on allowable emissions determined from the type of waste, the results of the stack test report dated March 15, 1991 and the hourly unit capacity as indicated in the application. [T1]

b. Emissions and operation of the Veterinary Hospital Incinerator shall not exceed the following limits:

Pollutant	(Lb/Hr)	(Ton/Yr)
PM	1.76	0.8
CO	6.40	2.9
NO_x	0.66	0.3

These limits were established in permit 83040011. The NO_x and CO are based upon limits of 35 IAC 35 Section 212.181 (d) and 216.141 respectively along with the gas flow rate during the approved stack test. The limit for NO_x is based on the operating rate during the stack test (400 lb/hr) and the maximum hours of operation indicated in the permit application. [T1]

7.7.7 Testing Requirements

N/A

7.7.8 Monitoring Requirements

a. Each incinerator shall be equipped with a secondary combustion chamber temperature indicator with a continuous recorder which will allow verification of compliance with requirements of Condition 7.7.5(a);

b. The condition of each incinerator shall be inspected on a periodic basis for the presence of deficiencies.

7.7.9 Recordkeeping Requirements

a. In addition to the records required by Condition 5.6, the Permittee shall maintain the following records for each incinerator to demonstrate compliance with Conditions 5.5.1, 7.7.5, and 7.7.8, pursuant to Section 39.5(7)(b) of the Act:

i. A secondary combustion chamber temperature during the time of operation;

ii. Amount of waste incinerated (lb/hr and tons/yr);

iii. Annual aggregate NO_x, PM, SO_2, and HCl emissions from the incinerators, based on the amount of waste charged and the applicable emission factors, with supporting calculations;

iv. Written operating procedures for each incinerator;

v. Operating logs for each incinerator, which include time beginning of charge waste, operating temperature of secondary chamber, time burnout of waste completed; and

vi. Inspection maintenance logs for each incinerator, with dates of inspection, maintenance, repair, or other actions completed.

b. The owner or operator of a co-fired combustor claiming an exemption from the emission limits under Section 229.110(d) of Part 229 shall maintain records on a calendar quarter basis of the relative weight of hospital waste and/or medical/infectious waste, and of all other fuels or waste combusted. [35 IAC 229.182 a)]

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with applicable requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

Emissions of PM, CO and HCl from the incinerators that may be in excess of the limits specified in Conditions 5.5.1 and 7.7.3 within 30 days of such an occurrence.

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.7.12 Compliance Procedures

a. Compliance with Condition 7.7.3(a) is assumed to be achieved by the work-practices inherent in operation of the afterburners on each incinerator along with the procedures specifying a minimum combustion chamber temperature in Condition 7.7.5, so that no compliance procedures are set in this permit;

b. Compliance with Condition 7.7.3(a) and (b) is assumed to be achieved by the work-practices inherent in operation of each incinerator, so that no compliance procedures are set in this permit addressing this regulation; and

c. To determine compliance with Condition 5.5.1, emissions from the incinerators shall be calculated based on the following emission factors and formulas listed below:

Pollutant	Emission Factor (Lb/Ton of Charged Waste)
PM	4.67
NO_x	3.56
SO_2	2.17

HCl	33.5

These are the emission factors for multiple chamber medical waste incinerators, Tables 2.3-1, 2.3-2 and 2.3-3, AP-42, Volume I, January 1995.

Incinerator Emissions (Lb) = Waste Charged (Tons) Multiplied by the Appropriate Emission Factor.

7.8 Unit 07: Natural Gas Fired Boilers (Under 10 mmBtu/hr)

7.8.1 Boilers are used to provide heating at various locations on the University Campus. Natural gas fired boilers with a maximum rated input capacity under 10.0 mmBtu/hr. Emergency back-up distillate fuel firing capability may also be provided.

7.8.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
07	Water Survey Research Center-Boiler 1 (8.375 mmBtu/Hr)	None
	Water Survey Research Center-Boiler 2 (8.375 mmBtu/Hr)	None
	Children's Research Center Boiler 1 (3.15 mmBtu/Hr)	None
	Children's Research Center Boiler 2 (3.15 mmBtu/Hr)	None
	Hazardous Waste Laboratory Boiler 1 (5.23 mmBtu/Hr)	None
	Hazardous Waste Laboratory Boiler 2 (5.23 mmBtu/Hr)	None
	Atkins Tennis Center Boiler (3.753 mmBtu/Hr)	None

7.8.3 Applicable Regulations

a. An affected boiler for the purpose of these unit specific conditions is a hot water generating unit that is fired with natural gas or distillate oil, with a heat input capacity less than 10 mmBtu/hr.

b. i. The emissions of particulate matter (PM) into the atmosphere in any one hour period shall not exceed 0.15 kg/MW-hr (0.10 lb/mmBtu) of actual heat input from any fuel combustion emission unit using liquid fuel exclusively [35 IAC 212.206].

ii. The emission of sulfur dioxide (SO_2) into the atmosphere in any one hour period from any existing fuel combustion emission unit, burning liquid fuel exclusively shall not exceed 0.46 kg of sulfur dioxide per MW-hr of

actual heat input when distillate fuel oil is burned (0.3 lb/mmBtu) [35 IAC 214.161(b)].

c. Each affected boiler is subject to the opacity limits identified in Condition 5.2.2(b).

7.8.4 Non-Applicability of Regulations of Concern

a. The New Source Performance Standard for Small-Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, applies to units constructed, reconstructed, or modified after June 9, 1989, with firing rates of 100 mmBtu/hr or less, but greater than 10 mmBtu/hr. The firing rates of the affected boilers are below the firing rates for which the NSPS would be applicable. Therefore, these rules do not apply.

b. The affected boilers are not subject to 35 IAC 217.141, emissions of NO_x from existing fuel combustion emission units in major metropolitan areas, because the actual heat input of each affected boiler is less than 73.2 MW (250 mmBtu/hr).

c. The affected boilers are not subject to 35 IAC 216.121, emissions of CO from existing fuel combustion emission units, because the actual heat input of each affected boiler is less than 2.9 MW (10 mmBtu/hr).

d. Pursuant to 35 IAC 215.303, fuel combustion emission units are not subject to 35 IAC 218.301, Use of Organic Material.

7.8.5 Operational and Production Limits and Work Practices

a. Each affected boiler shall only be operated with natural gas or distillate fuel oil as the fuels.

b. The Permittee shall not use distillate fuel oil (Grades No. 1 and 2 fuels) in the affected boilers with a sulfur content greater than the larger of the following two values:

i. 0.28 weight percent, or

ii. The Wt percent given by the formula:

Maximum Wt. Percent Sulfur = (0.000015) x (Gross Heating Value of Oil, Btu/Lb).

7.8.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5.1, the affected boilers are subject to the following:

a. Operation of the Two Hazardous Waste Research Center boilers shall not begin until all associated air pollution control equipment has been constructed and is operational.

b. Emissions of nitrogen oxides and carbon monoxide shall not exceed 6.4 and 1.6 tons/year, respectively. These limits are based on standard emission factors, firing of natural gas at the maximum firing rate (10.46 mmBtu/hr total for the two boilers), and the maximum hours of operation indicated in the permit application.

The above limitations were established in Construction Permit 88010059.

7.8.7 Testing Requirements

None

7.8.8 Monitoring Requirements

None

7.8.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items to demonstrate compliance with Conditions 5.5.1 and 7.8.5 pursuant to Section 39.5(7)(b) of the Act:

a. Total natural gas usage for the affected boilers (ft^3/yr);

b. Total distillate fuel oil usage for the affected boilers (gal/yr);

c. The maximum sulfur content (in Wt.%) for each shipment of distillate fuel oil used in the affected boilers; and

d. Annual aggregate NO_x, PM, SO_2, and VOM emissions from the affected boilers, based on fuel consumption and the applicable emission factors, with supporting calculations.

7.8.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with applicable requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

a. Notification within 60 days of operation of an affected boiler that may not have been compliance with the opacity limitations in Condition 5.2.2(b), with a copy of such record for each incident.

b. If there is an exceedance of sulfur content of distillate fuel oil in excess of the limit specified in Condition 7.8.5, the Permittee shall submit a report within 30 days after receipt of a noncompliant shipment of distillate fuel oil.

c. Emissions of NO_x, PM, SO_2, or VOM from the affected boilers in excess of the limits specified in Condition 5.5.1 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

7.8.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.8.12 Compliance Procedures

a. Compliance with Condition 7.8.3(b)(ii) is demonstrated under inherent operating conditions of an affected boiler, so that no compliance procedures are set in this permit addressing this requirement.

b. Compliance with Condition 7.8.3(b)(iii) is demonstrated under inherent operating conditions of affected boilers fired by distillate oil with a sulfur content meeting the specification of Condition 7.8.5(b), so that no compliance procedures are set in this permit addressing this regulation.

c. Compliance with the emission limits in Conditions 5.5.1 and 5.5.3 shall be based on the recordkeeping requirements in Condition 7.8.9 and the emission factors and formulas listed below:

i. Emissions from the boilers burning natural gas shall be calculated based on the following emission factors:

Pollutant	Emission Factor ($lb/10^6 ft^3$)

PM	1.9
SO_2	0.6
VOM	5.5
NO_x	100

These are the emission factors for uncontrolled natural gas combustion in small boilers (<100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, Volume I, Fifth Edition, March 1998.

Boiler Emissions (Ton) = Natural Gas Consumed Multiplied by the Appropriate Emission Factor/2000.

ii. Emissions from the affected boilers burning distillate fuel oil shall be calculated based on the following emission factors:

Pollutant	Emission Factors ($lb/10^3$ gallon)
PM	2
NO_x	20
SO_2	142%S
VOM	0.34

These are the emission factors for uncontrolled distillate fuel oil combustion in commercial/institutional/residential combustors, Tables 1.3-1, 1.3-3 and 1.3-7, AP-42, Volume I, Fifth Edition, September 1998. "%S" indicates that the weight % of sulfur in the oil should be multiplied by the value given.

Boiler Emissions (Ton) = Distillate Fuel Oil Consumed (Gallons) Multiplied by the Appropriate Emission Factor/2000.

iii. Total emissions for each pollutant are to be determined by combining the results of Conditions 7.8.12(c)(i) and (ii) for all affected boilers.

7.9 Unit: Natural Gas Fired Heaters
Control: None

7.9.1 Description

The following combustion equipment is natural gas fired with rated heat input capacity greater than 10 mmBtu/hr but less than 100 mmBtu/hr.

7.9.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
09	Flue Gas Reheat Burner-Abbott (11.0 mmBtu/hr)	None
	Natural Resources Studies Annex-Boiler 1 (10.461 mmBtu/hr)	None
	Natural Resources Studies Annex-Boiler 2 (10.461 mmBtu/hr)	None

7.9.3 Applicable Regulations

a. An "affected natural gas fired heater" for the purpose of these unit-specific conditions, are the natural gas fired heaters listed in conditions 7.9.1 and 7.9.2.

b. The emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

c. Each affected natural gas fired heater is subject to the opacity limits identified in Condition 5.2.2(b).

7.9.4 Non-Applicability of Regulations of Concern

a. The New Source Performance Standard for Small - Industrial - Commercial - Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, applies to units constructed, reconstructed, or modified after June 9, 1989. The natural gas fired heaters listed in 7.9.1 and 7.9.2 were constructed prior to June 9, 1989, therefore, these rules do not apply.

b. Pursuant to 35 IAC 218.303, fuel combustion emission units are not subject to 35 IAC 218.301, "Use of Organic Material".

7.9.5 Operational and Production Limits and Work Practices

Natural gas shall be the only fuel burned in the heaters.

7.9.6 Emission Limitations

In addition to Condition 5.2.2 and the source-wide limitations in Condition 5.5, the affected heater is subject to the following:

N/A

7.9.7 Testing Requirements

None

7.9.8 Monitoring Requirements

None

7.9.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items which allow to demonstrate compliance with Condition 5.5.1 and 7.9.5 pursuant to Section 39.5 (7) (b) of the Act:

a. Total natural gas usage for the heaters (mcf/year)

b. Annual aggregate NO_x, PM, SO_2, and VOM emissions from the heaters, based on fuel consumption and the applicable emission factors, with supporting calculations.

7.9.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with applicable requirements within 30 days pursuant to Section 39.5 (7) (f) (ii) of the Act.

7.9.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.9.12 Compliance Procedures

a. Compliance provisions addressing Condition 7.9.3(b) are not set by this permit as compliance is assumed to be achieved by the normal work practices and maintenance activities inherent in operation of natural gas fired boilers.

b. Compliance with the emission limits in condition 5.5 shall be based on the recordkeeping requirements in Condition 7.9.9 and the emission factors and formulas listed below:

Pollutant	Emission Factor ($lb/10^6$ ft^3)
NO_x	100.0
PM	7.6
SO_2	0.6
VOM	5.5

These are the emission factors for uncontrolled natural gas combustion in small industrial boilers (<100 mmBtu/hr), Tables 1.4.1 and 1.4.2, AP-42, Volume I, 5^{th} Edition, March 1998 Revision.

Natural Gas Fired Heater Emissions (Lb) = Natural Gas Consumed Multiplied by the Appropriate Emission Factor.

7.10 Unit 10: One 12,000 Gallon Underground Gasoline Storage Tank.
Control 03: Submerged Loading Pipe

7.10.1 Description

UIUC operates one 12,000 gallon "unleaded" gasoline storage tank to fuel plant vehicles.

7.10.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
10	One 12,000 Gallon Gasoline Storage Tank.	Submerged Loading Pipe.

7.10.3 Applicability Provisions

a. The "affected storage tank", for the purpose of these unit-specific conditions is an emission unit described in conditions 7.10.1 and 7.10.2.

b. The affected tank is subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60 Subpart Kb, because the affected tank has a capacity greater than or equal to 40 m^3 (10,566 gallons) and is used to store Volatile Organic Liquids for which construction, reconstruction, or modification is commenced after July 23, 1984.

c. The affected storage tank is subject to 35 IAC 215.122 (b) which states: No person shall cause or allow the loading of any organic material in any stationary tank having a storage capacity of greater than 946 liter (250 gallons), unless such tank is equipped with a permanent submerged loading pipe [35 IAC 215.122(b)].

c. The affected storage tank is subject to 35 IAC 215.583 a)1) which states: No person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary tank at gasoline dispensing operation, unless such tank is equipped with a submerged loading pipe [35 IAC 215.583(a)(1)].

7.10.4 Non-Applicability of Regulations of Concern

a. The affected storage tank is not subject to the requirements of 35 IAC 215.121, because the tank is less than 40,000 gal.

b. The affected storage tank is not subject to the requirements of 35 IAC 215.122(a), because the tank is less than 40,000 gal.

c. Except as provided in Condition 7.10.9 below, storage vessels with design capacity less than 75 m^3 are exempt from the General Provisions of the NSPS and from the provisions of 40 CFR 60 Subpart Kb [40 CFR 60.110b(b)].

d. The affected tank is not subject to the limitations of 35 IAC 215.583(a)(2) because the tank is not located in any of the following counties: Boone, Cook, DuPage, Kane, Lake, Madison, McHenry, Peoria, Rock Island, St. Clair, Tazewell, Will or Winnebago. [35 IAC 215.583(b)(4)]

7.10.5 Operational and Production Limits and Work Practices

Each affected storage tank is subject to the applicable provisions of Condition 7.10.3. The affected storage tank shall be equipped and operated with a submerged loading pipe for submerged fill.

7.10.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected storage tank is subject to the following:

None

7.10.7 Testing Requirements

None

7.10.8 Inspection and Monitoring Requirements

None

7.10.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected tank to demonstrate compliance with Condition 7.10.5 and 7.10.6 pursuant to Section 39.5(7) of the Act:

a. Design information for the tank showing the presence of a submerged loading pipe or submerged fill;

b. Maintenance and repair records for the tank, as related to the repair or replacement of the loading pipe;

c. The throughput of the affected storage tanks, gal/yr; and

d. The annual VOM emissions from the affected storage tanks based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

e. The owner or operator of each storage vessel for which construction, reconstruction, or modification is commenced after July 23, 1984 with a design capacity greater than or equal to 40 m^3, but less than 75 m^3 shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m^3 is subject to no other provision of 40 CFR 60 Subpart Kb other than those required by this paragraph. This record shall be kept for the life of the source [40 CFR 60.110b(a), 60.116b(a), and 60.116b(b)].

7.10.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected storage tank with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Any loading of gasoline or other VOL into an affected tanks that is not in compliance with Condition 7.10.5, e.g., an inoperative or no "submerged loading pipe or submerged fill" within five days of becoming aware of the noncompliance status. This notification shall include a description of the event, the cause for the noncompliance, actions taken to correct the noncompliance and the steps taken to avoid future noncompliance.

7.10.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.10.12 Compliance Procedures

Compliance with the emission limits in condition 5.5 and 7.3.6 shall be based on the recordkeeping requirements in Condition 7.10.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from the affected storage tank, the current version 4.09 of the TANKS program is acceptable, or any subsequent program.

7.11 Other Gasoline Storage

7.11.1 Description

UIUC operates various other gasoline storage tanks at certain places on the University campus. These include one 1,000 gallon tank (Natural Resources Garage); one 540 gallon tank (Horticulture); one 500 gallon tank (Horticulture); one 550 gallon tank (Horticulture); one 500 gallon tank (Economic Entomology); one 500 gallon tank (Urbana General Farm); one 1,000 gallon tank (Agronomy); one 500 gallon tank (Intercollegiate Athletics) and one 1,000 gallon tank (Intercollegiate Athletics).

7.11.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
11	Nine Gasoline Storage Tanks Greater Than 250 Gallons and Less Than 10,566 Gallons	Submerged Fill Pipes

7.11.3 Applicability Provisions

An "affected storage tank" for the purpose of these unit-specific conditions, are the storage tanks described in Conditions 7.11.1 and 7.11.2.

7.11.4 Applicable Emission Standards

a. i. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 1 (250 gal), unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the Illinois EPA according to the provisions of 35 IAC 201 or unless such tank is a pressure tank as described in 35 IAC 215.121(a) or is fitted with a recovery system as described in 35 IAC 215.121(b)(2) [35 IAC 215.122(b)].

ii. Exception: If no odor nuisance exists the limitations of Condition 7.11.4(a) shall only apply to the loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) [35 IAC 215.122(c)].

b. No person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank at a gasoline dispensing facility unless

the tank is equipped with a submerged loading pipe [35 IAC 215.583(a)(1)].

7.11.5 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected storage tanks not being subject to the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels), 40 CFR Part 60, Subpart Kb, because the affected storage tanks are less than 40 cubic meters (10,566 gallons).

b. This permit is issued based on the affected storage tanks not being subject to 35 IAC 215.121, because the affected storage tanks are less than 40,000 gallons.

c. This permit is issued based on the affected storage tanks not being subject to 35 IAC 215.122(a), because the affected storage tanks are less than 40,000 gallons.

d. The requirements of 35 IAC 215.583(a)(2) shall not apply to transfers of gasoline to a stationary storage tank at a gasoline dispensing facility because the affected storage tanks are not located in any of the following counties: Boone, Cook, DuPage, Kane, Lake, Madison, McHenry, Peoria, Rock Island, St. Clair, Tazewell, Will or Winnebago [35 IAC 215.583(b)].

e. This permit is issued based on the affected storage tanks not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected storage tanks do not use an add-on control device to achieve compliance with an emission limitation or standard.

7.11.6 Work Practices, Operational and Production Limits, and Emission Limitations

None

7.11.7 Testing Requirements

None

7.11.8 Inspection Requirements

None

7.11.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected storage tanks, pursuant to Section 39.5(7)(b) of the Act:

a. Design information for each affected storage tank showing the presence of permanent submerged loading pipe or the use of submerged loading fill when loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) or loading of gasoline.

b. Maintenance and repair records for each affected storage tank, as related to the repair or replacement of the loading pipe.

c. Identification and throughput of each material stored in each affected storage tank, gal/mo and gal/yr.

7.11.10 Reporting Requirements

For the affected storage tanks, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as follows. Such notifications shall include a description of each incident and a discussion of the probable cause of deviation, any corrective actions taken and any preventative measures taken, pursuant to Section 39.5(7)(f)(ii) of the Act:

a. Any storage of VOL in an affected storage tank that is not in compliance with the requirements of Conditions 7.11.4(a) or 7.11.4(b) within 30 days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps taken to avoid future non-compliance.

7.11.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to an affected storage tank without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements or to properly obtain a construction permit in a timely manner for any activity constituting a modification as defined by 40 CFR 52.21 or for an activity for which a permit is required pursuant to 35 IAC 201.142.

a. Changes to components related to either the submerged loading pipe or submerged fill, including addition of new components and repair and replacement of components.

b. Changes in the material stored in the affected storage tank, provided the affected storage tank continue to comply with the Conditions of Section 7.11 of this permit.

7.11.12 Compliance Procedures

a. Compliance with Conditions 7.11.4(a) and 7.11.4(b) is considered to be assured by the use of submerged loading pipe or submerged fill as required in Condition 7.11.6(a) and by the recordkeeping requirement of Condition 7.11.9.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after _____**{insert public notice start date}** (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this

permit, provided that [Section 39.5(12)(a)(i) of the Act]:

a. The changes do not violate applicable requirements;

b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;

c. The changes do not constitute a modification under Title I of the CAA;

d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and

e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:

i. Describe the physical or operational change;

ii. Identify the schedule for implementing the physical or operational change;

iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;

iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and

v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

Monitoring Period	Report Due Date
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

a. The name and identification of the affected unit(s);

b. The person(s) who will be performing sampling and analysis and their experience with similar tests;

c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;

d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;

e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;

f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

a. The name and identification of the affected unit(s);

b. The date and time of the sampling or measurements;

c. The date any analyses were performed;

d. The name of the company that performed the tests and/or analyses;

e. The test and analytical methodologies used;

f. The results of the tests including raw data, and/or analyses including sample calculations;

g. The operating conditions at the time of the sampling or measurements; and

h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:

i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency

Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

iii. Illinois EPA - Air Permit Section

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

USEPA (AE - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and

d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner

unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control

equipment), practices, or operations regulated or required under this permit;

d. Sample or monitor any substances or parameters at any location:

i. At reasonable times, for the purposes of assuring permit compliance; or

ii. As otherwise authorized by the CAA, or the Act.

e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and

f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply with Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any

loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].

b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 – Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.

c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;

ii. The permitted source was at the time being properly operated;

iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.

b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay

any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;

b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;

c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and

d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of

the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(l), (n), and (o) of the Act].

10.1 ATTACHMENTS

10.1 Attachment 2 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.2 Attachment 2 - Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

1. Administrative Permit Amendment;

2. Minor Permit Modification; and

3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

1. Administrative Permit Amendment

- Corrects typographical errors;
- Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
- Requires more frequent monitoring or reporting by the Permittee;
- Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA. This shall be handled by completing form 272-CAAPP, REQUEST FOR OWNERSHIP CHANGE FOR CAAPP PERMIT; or
- Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits.

2. Minor Permit Modification

- Do not violate any applicable requirement;
- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements

in the permit;

- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;

- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

    - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and

    - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.

- Are not modifications under any provision of Title I of the CAA;

- Are not required to be processed as a significant permit modification; and

- Modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

- The source's suggested draft permit/conditions;

- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

- Information as contained on form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;
- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and
- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

- A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change. Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

The Illinois EPA requires the information on the following appropriate forms to be submitted in accordance with the proper classification:

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or
- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or
- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at http://www.epa.state.il.us/air/forms.

Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.

Illinois Environmental Protection Agency
Division Of Air Pollution Control -- Permit Section
P.O. Box 19506
Springfield, Illinois 62794-9506

Application For Construction Permit (For CAAPP Sources Only)	**For Illinois EPA use only**
	I.D. number:
	Permit number:
	Date received:

This form is to be used by CAAPP sources to supply information necessary to obtain a construction permit. Please attach other necessary information and completed CAAPP forms regarding this construction/modification project.

Source Information

1. Source name:		
2. Source street address:		
3. City:		4. Zip code:
5. Is the source located within city limits?		☐ Yes ☐ No
6. Township name:	7. County:	8. I.D. number:

Owner Information

9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

Operator Information (if different from owner)

14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information

19. Who is the applicant? ☐ Owner ☐ Operator	20. All correspondence to: (check one) ☐ Owner ☐ Operator ☐ Source
21. Attention name and/or title for written correspondence:	
22. Technical contact person for application:	23. Contact person's telephone number:

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

Summary Of Application Contents

24.	Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs: a) Non-attainment New Source Review – 35 IAC Part 203; b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21; c) Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources – 40 CFR Part 63?	☐ Yes ☐ No
25.	Does the application identify and address all applicable emissions standards, including those found in the following: a) Board Emission Standards – 35 IAC Chapter I, Subtitle B; b) Federal New Source Performance Standards – 40 CFR Part 60; c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61 and 63?	☐ Yes ☐ No
26.	Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?	☐ Yes ☐ No
27.	Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?	☐ Yes ☐ No
28.	Does the application include the information as contained in completed CAAPP forms for all appropriate emission units and air pollution control equipment, listing all applicable requirements and proposed exemptions from otherwise applicable requirements, and identifying and describing any outstanding legal actions by either the USEPA or the Illinois EPA? Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to supply information.	☐ Yes ☐ No
29.	If the application contains TRADE SECRET information, has such information been properly marked and claimed, and have two separate copies of the application suitable for public inspection and notice been submitted, in accordance with applicable rules and regulations?	☐ Yes ☐ No ☐ Not Applicable, No TRADE SECRET information in this application

Note 1: Answering "No" to any of the above may result in the application being deemed incomplete.

Signature Block

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

30. I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete.

Authorized Signature:

BY:

_____ _____

AUTHORIZED SIGNATURE TITLE OF SIGNATORY

_____ _____ / _____ / _____

TYPED OR PRINTED NAME OF SIGNATORY DATE

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source's CAAPP permit, if necessary.

10.4 Attachment 4 - Guidance on Renewing This Permit

Timeliness - Pursuant to Section 39.5(5)(n) of the Act and 35 IAC 270.301(d), a source must submit to the Illinois EPA a complete CAAPP application for the renewal of a CAAPP permit not later than 9 months before the date of permit expiration of the existing CAAPP permit in order for the submittal to be deemed timely. Note that the Illinois EPA typically sends out renewal notices approximately 18 months prior to the expiration of the CAAPP permit.

The CAAPP application must provide all of the following information in order for the renewal CAAPP application to be deemed complete by the Illinois EPA:

1. A completed renewal application form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.

2. A completed compliance plan form 293-CAAPP, COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE FOR CAAPP PERMIT.

3. A completed compliance certification form 296-CAAPP, COMPLIANCE CERTIFICATION, signed by the responsible official.

4. Any applicable requirements that became effective during the term of the permit and that were not included in the permit as a reopening or permit revision.

5. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.

6. Information addressing any outstanding transfer agreement pursuant to the ERMS.

7. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. This letter must also include a statement that information incorporated by reference is also being certified for truth and accuracy by the responsible official's signing of the form 200-CAAPP, APPLICATION FOR CAAPP PERMIT and the form 296-CAAPP, COMPLIANCE CERTIFICATION. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT, as existing information is being incorporated by reference.

b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.

8. Information about all off-permit changes that were not prohibited or addressed by the permit to occur without a permit revision and the information must be sufficient to identify all applicable requirements, including monitoring, recordkeeping, and reporting requirements, for such changes.

9. Information about all changes made under 40 CFR 70.4(b)(12)(i) and (ii) that require a 7-day notification prior to the change without requiring a permit revision.

The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance with the terms and conditions of its CAAPP permit until final action is taken on the renewal application.

Notwithstanding the completeness determination, the Illinois EPA may request additional information necessary to evaluate or take final action on the CAAPP renewal application. If such additional information affects your allowable emission limits, a revised form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT must be submitted with the requested information. The failure to submit to the Illinois EPA the requested information within the time frame specified by the Illinois EPA, may force the Illinois EPA to deny your CAAPP renewal application pursuant to Section 39.5 of the Act.

Application forms may be obtained from the Illinois EPA website at http://www.epa.state.il.us/air/forms.html.

If you have any questions regarding this matter, please contact a permit analyst at 217/782-2113.

Mail renewal applications to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

I. INTRODUCTION

This source has applied for a Clean Air Act Permit Program (CAAPP) operating permit for its existing operation. The CAAPP is the program established in Illinois for the operating permits for significant stationary sources required by the federal Clean Air Act, as amended in 1990. The conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

The location and type of the significant emission units serving the University of Illinois at Urbana-Champaign ("UIUC") campus are broadly given as follows: The Veterinary Medicine Hospital (hospital incinerator), Water Survey Research Center (boilers), Children Research Center (boilers), Natural Resources Studies Annex (boilers), Hazardous Waste Laboratory (boilers), Operation & Maintenance Facility (gasoline storage tank), Edward R. Madigan Laboratory (incinerator); The Atkins Tennis Center (boiler) and The Abbott Power Plant.

The Abbott Power Plant consists of six boilers identified as boilers 2, 3, 4, 5, 6 and 7. (Boiler 1 has been removed from the plant.) Boilers 2, 3 and 4 can fire #2 fuel oil, natural gas, or a combination thereof. Boilers 2, 3 and 4 are also used to dispose of small amounts of waste liquid scintillation cocktail ("WLSC"), while burning natural gas. WLSC is generated from on-site research activities. Boilers 5, 6 and 7 are coal-fired boilers. Combustion Turbines 1 and 2 can fire natural gas or #2 fuel oil and the associated duct burners 1 and 2 fire natural gas. Ancillary operations at the power plant include the following: a fuel supply system, a flue gas handling system, an ash removal system, a flue gas desulfurization (FGD) system, a steam distribution and condensate return system, two Heat Recovery Steam Generating (HRSG) units and three steam driven turbines.

II. EMISSION UNITS

Significant emission units at this source are as follows:

Emission Unit	Description	Date Constructed	Emission Control Equipment
01	Abbott Power Plant Boiler 2 (236 mmBtu/Hr) Natural Gas and Fuel Oil Fired	1971 Modified 2002	Low NO_x Burners
	Abbott Power Plant Boiler 3 (236 mmBtu/Hr) Natural Gas and Fuel Oil Fired	1971 Modified 2002	Low NO_x Burners
	Abbott Power Plant Boiler 4 (236 mmBtu/Hr) Natural Gas and Fuel Oil Fired	1971 Modified 2002	Low NO_x Burners
02	Abbott Power Plant Boiler 5 (200 mmBtu/Hr) Coal Fired	1956 Modified 6/88	ESP, FGD
	Abbott Power Plant Boiler 6 (200 mmBtu/Hr) Coal Fired	1956 Modified 6/88	ESP, FGD
	Abbott Power Plant Boiler 7 (243 mmBtu/Hr) Coal Fired	1962 Modified 2/89	ESP, FGD

Emission Unit	Description	Date Constructed	Emission Control Equipment
03	Coal Handling System, B to C Transfer	1956	Fabric Filter
	Coal Handling System, C to D Transfer	1956	Fabric Filter
	Coal Handling System, D to Bunker Transfer	1956	Fabric Filter
04	Coal Crushing	1956	Enclosure, Fabric Filter
05	Ash Handling System	1956	Bag Filter, Nuveyor Ash Washer
	Limestone Handling System	1986	Fabric Filter
06	Combustion Turbine 1 (134.38 mmBtu/Hr)	Fall 2001	CO Catalyst
	Combustion Turbine 2 (134.38 mmBtu/Hr)	Fall 2001	CO Catalyst
	Duct Burner 1 (80 mmBtu/hr)	Fall 2001	CO Catalyst
	Duct Burner 2 (80 mmBtu/hr)	Fall 2001	CO Catalyst
07	Veterinary Medicine Hospital Incinerator	September 1980 (Type 4 and 7 Wastes)	Thermal Oxidizer
	Edwin R. Madigan Laboratory (ERML) Incinerator	June, 1989 (Type 4 Waste)	Thermal Oxidizer
08	Water Survey Research Center-Boiler 1 (8.375 mmBtu/Hr)	1965	None
	Water Survey Research Center-Boiler 2 (8.375 mmBtu/Hr)	1965	None
	Children's Research Center-Boiler 1 (3.15 mmBtu/Hr)	1967	None
	Children's Research Center-Boiler 2 (3.15 mmBtu/Hr)	1967	None
	Hazardous Waste Laboratory-Boiler 1 (5.23 mmBtu/Hr)	1988	None
	Hazardous Waste Laboratory-Boiler 2 (5.23 mmBtu/Hr)	1988	None
	Atkins Tennis Center Boiler (3.753 mmBtu/Hr)	1991	None
09	Flue Gas Reheat Burner Abbott (11.0 mmBtu/Hr)	1986	None
	Natural Resources Studies Annex-Boiler 1 (10.461 mmBtu/Hr)	1973	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
	Natural Resources Studies Annex-Boiler 2 (10.461 mmBtu/Hr)	1973	None
10	One 12,000 Gallon Unleaded Gasoline Storage Tank	Oct, 1987	Submerged Fill Pipe
11	Other Gasoline Storage	Various	Submerged Fill Pipe

III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions.

For purposes of fees, the source is allowed the following emissions:

Pollutant	Tons/Year
Volatile Organic Material (VOM)	23.28
Sulfur Dioxide (SO_2)	1,112.39
Particulate Matter (PM)	212.95
Nitrogen Oxides (NO_x)	1,625.80
HAP, not included in VOM or PM	2.76
Total	2,977.19

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois.

All emission sources in Illinois must comply with the federal New Source Performance Standards (NSPS). The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

All emission sources in Illinois must comply with the federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

V. PROPOSED PERMIT

CAAPP

A CAAPP permit contains all conditions that apply to a source and a listing of the applicable state and federal air pollution control regulations that are the origin of the conditions. The permit also contains emission limits and appropriate compliance procedures. The appropriate compliance procedures may include inspections, work practices, monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis.

Title I

A combined Title I/CAAPP permit contains terms and conditions established by the Illinois EPA pursuant to authority found in Title I provisions, e.g., 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Notwithstanding the expiration date on the first page of the permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.

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